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EXPECTATION ASSESSMENT OF INDIVIDUALS WHO ENTER A CARDIAC REHABILITATION PROGRAM FOLLOWING A MYOCARDIAL INFARCTION

BY

©

ELEANOR M. HAYES

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of MASTER OF NURSING.

FACULTY OF NURSING

Edmonton, Alberta
SPRING 1993

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled EXPECTATION ASSESSMENT OF INDIVIDUALS WHO ENTER A CARDIAC REHABILITATION PROGRAM FOLLOWING A MYOCARDIAL INFARCTION submitted by ELEANOR M. HAYES in partial fulfillment of the requirements for the degree of MASTER OF NURSING.

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Dr. Marilynn Wood

Peter Calder

Dr. Peter Calder

DATE: April 16, 1993

DEDICATION

To my family and friends who have given me their unfailing support and confidence and to Jessie Morrison who became my friend and mentor while working on my Master's in Nursing.

Proverbs 1: 5,7.
"We learn in spite of ourselves."

Abstract

Following a myocardial infarction (MI), individuals hope to learn, gain and/or achieve, or benefit from entering a cardiac rehabilitation program (CRP). What are their expectations? Existing literature focuses on programs based on health care professionals' assessments of these individuals' needs, not the individuals' perceived requirements. In this study, post-MI individuals' personal expectations for cardiac rehabilitation were assessed using a descriptive design. Content analysis and descriptive statistics were used to assess data collected, during a home visit, from 31 post-MI individuals responding to open-ended questions and a Likert scale questionnaire. It was found that expectations were based on the individual's experiences and knowledge. Also, the majority of expectations reported by post-MI individuals related to present contents of CRPs with additional items reflecting a desire for improvement or restoration in health, topics that were specific to individuals, and hopes for future accessibility to cardiac rehabilitation support and resources. As programs are established for these individuals' welfare, their expectations of what programs provide are vital for program development and success.

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CHAPTER I

Introduction

The most recent health statistics obtained from the Health Economics and Statistics Branch of Alberta Health, indicate that in the fiscal year of 1989-90, the number of people in Alberta who had an acute myocardial infarction (MI) was 4,014. The total population for Alberta in 1989-90 was 2,415,129 with 1,213,736 being males and 1,201,393 being females. The rate of MIs was 165.5 per 100,000 for the total population. The rate for males (225.9) was more than double that for females (104.5). This information, which came from hospital separation data for the province of Alberta, is to be published in a report at a later date.

Individuals who have MIs represent a group of Albertans who are in need of cardiac rehabilitation, though all may not wish, or be able, to avail themselves of this service. Cardiac rehabilitation programs (CRPs) have existed for over 30 years. In the past, well defined program goals have been developed from the perspective of health care professionals. In the future however, emphasis must be on needs that are perceived by the individual patient rather than on program characteristics (Wenger, 1987). Individual expectations should therefore represent the starting point for future plans which highlight "the fact that MI-patients are active participants in the recovery process, and not passive victims to the disease or external circumstances" (Maeland &

Havik, 1989, p. 52). It has been determined that expectations both about internal and external resources, as well as about outcomes, are related to and influenced by "psychological well-being in a variety of adult populations ... with a variety of acute and chronic health care problems" (Barsevick & Lauver, 1991, p. 215). Though "the evidence supporting a link between expectation and physical well-being is less consistent than that linking expectation with psychological well-being" (Barsevick & Lauver, 1991, p. 216), in planning care for individuals with different expectations, "it is important for health care professionals to understand how expectation can be altered in clinically meaningfully ways" (Barsevick & Lauver, 1991, p. 217). It is also critical that professionals understand that the way they present information about anticipated outcomes can influence people's expectations, choices regarding different aspects of care, and health care outcomes (Barsevick & Lauver, 1991).

Therefore, if health care professionals are to effectively and efficiently use scarce health care resources, they must actively determine what it is that post-MI individuals seek when they take the time and expend the energy to attend a CRP. Thus for CRPs to be most effective, information needs to be sought from post-MI individuals entering a CRP as to what they believe their needs are and how they expect these would be met through a

CRP. This information can then be used by health care professionals to assess whether programs are meeting needs, to add or delete aspects of programs as appropriate, and to allow for information to be provided that can counteract the negative forces of misinformation.

What then are the expectations of post-MI individuals entering cardiac rehabilitation programs? That is, what do post-MI individuals anticipate from a cardiac rehabilitation program based on their perception of what will take place, and what they hope to learn, to achieve and/or gain, and how they hope to benefit? What post-MI individuals hope to learn, to achieve and/or gain, and how they hope to benefit from these programs when they enter them has not been adequately studied.

Purpose of the Study

The purpose of this study was to determine and describe the expectations of post-MI individuals for what they hoped to learn, achieve and/or gain, and how they hoped to benefit when they entered a cardiac rehabilitation program. Specifically, the research questions guiding the study were:

1. What do post-MI individuals initially know about cardiac rehabilitation programs;
2. What information do post-MI individuals expect to learn in a cardiac rehabilitation program;

3. What do post-MI individuals hope to achieve by attending a cardiac rehabilitation program; and

4. How do post-MI individuals hope to benefit from attending a cardiac rehabilitation program?

Significance of the Study

Determining the expectations of post-MI individuals upon entering a CRP is significant for several reasons. This information can be used as a foundation to assess the effectiveness of a program from the post-MI individual's perspective, a perspective that is anticipated to be increasingly emphasized in the future. Also, the expectations of health care professionals and post-MI individuals can be compared. Post-MI individuals attending a CRP were observed to have expectations for the program that differed from those of health professionals who provided their care. For instance, one young man had been prescribed goals for weight loss and smoking cessation. He revealed part way through his CRP that what he wanted most was to carry his infant son without fear of the possible consequences. As "the role of expectations in the regulation of actions, emotions and thoughts has been demonstrated in patients after myocardial infarctions" (Cay & Walker, 1988, p. 75) and CRPs are established for the individuals' welfare, their expectations of what programs provide is considered vital for program development and success. This study then, represents an opportunity to determine what post-MI individuals hope to achieve in relation to their cardiac care in general and cardiac rehabilitation, including programs, in particular.

CHAPTER II

Review of the Literature

Cardiac Rehabilitation

Recovery treatment from a myocardial infarction (MI) has changed dramatically. For many years patients' activities had been limited for an extended period of time following a MI, sometimes up to six weeks (Hojnacki & Halfman-Franey,1985). In the 1950's however, more aggressive treatment was found to result in fewer complications. In fact "Dwight Eisenhower's physician shocked the nation by prescribing graded levels of exercise for the post-MI president" (Hemry, 1988, p. 1196) paving the way for development of the cardiac rehabilitation programs (CRPs) of the 1960's.

Cardiac rehabilitation is "the process by which a patient is returned realistically to his greatest physical, mental, social, vocational, and economic usefulness, and if employable, is provided an opportunity for gainful employment in a competitive world" (Hojnacki & Halfman-Franey, 1985, p. 95). The goal of cardiac rehabilitation is not only "to return the patient to an optimal level of physiologic, psychologic, and vocational functioning", but as well, it is "to attempt to prevent the progression of underlying disease" (Fleury, 1991, p. 3).

Blumenthal and Emery (1988) observed that though "data do not conclusively demonstrate that cardiac rehabilitation "prolongs life or significantly reduces morbidity rates in post-MI patients", when compared with routine medical care, the value of cardiac rehabilitation "as a method for improving the quality of life among post-MI patients" is generally supported (p. 374). Also, a review of randomized controlled trials of exercise rehabilitation for MI patients indicated that, in seven of nine major trials involving 3,222 patients followed for one to nine years, the total mortality was reduced by 20% to 50% and that exercise can improve mood state and increase physical working capacity (Shephard, 1988). Another study about an exercise-based CRP showed psychological benefits following a 10 week program with no correlation between physiological and psychological improvements (Newton, Mutrie, & McArthur, 1991). The authors suggested that the 10 weeks may not have been long enough for physiological benefits to fully develop. In still another study in which the association between participation in outpatient cardiac rehabilitation programs and a variety of outcomes was examined using interviews with 197 individuals one to two years after their initial MI, the importance of these programs was supported (Conn, Taylor, & Casey, 1992). It is clear that psychological improvements result from CRPs and that evidence exists that physiological gains also can be achieved over time with exercise begun during CRPs.

Current Content of Cardiac Rehabilitation Programs

Current literature on post-MI patients and cardiac rehabilitation programs focuses on patient characteristics, health beliefs, behaviours, and compliance to assigned regimens reported from the perspective of health care professionals (Blumenthal & Emery, 1988; Fleury, 1991; Garding, Kerr, & Bay, 1988; Hentinen, 1986; Hiatt, Hoenshell-Nelson, & Zimmerman, 1990; King, Martin, Morrell, Arena, & Boland, 1986; McGirr, Rukholm, Salmoni, O'Sullivan, & Koren, 1990; McMahon, Miller, Wikoff, Garrett, & Ringel, 1986; Owens, McCann, & Hutelmyer, 1978; Parchert & Simon, 1988; Radtke, 1989). Little of the literature reflected the individual's concerns and goals.

One study focused on post-MI individuals' methods of coping with a MI (Scherck, 1992). In another about spouses learning about their support role, spouses' perceptions of their learning needs, and those of the MI individual during the rehabilitative phase of recovery from a MI, were mentioned (Bramwell, 1986). In still another, telephone calls from cardiac patients or their families about problems troubling them after discharge (Nicklin, 1986) revealed the basis of possible expectations for CRPs. Also, a study to determine patient problems and questions following hospital discharge provided input on these topics for a inpatient cardiac teaching booklet (Rahe, Scalzi, & Shine, 1975). Further, a study to determine what perceived threats MI patients report after hospitalization provided an overview of the multiple concerns individuals deal with after a major life-threatening cardiac event (Bennett, 1992). None of these studies, however, focused on how these needs and concerns could be the basis of expectations for a CRP.

As few studies addressed the "aspects of patients' knowledge and health beliefs regarding their MI, their own views of their need for information and the implications these might have for the content of coronary rehabilitation programmes" (Murray, 1989, p.687), a descriptive study was conducted in England to determine if the information needs of post-coronary patients for rehabilitation were met prior to hospital discharge. Patients in this study were found to have concerns about receiving advice that was not specific or relevant to their own needs, or not being given information such as what to do if they had further chest pain at home. Further, patients' perceptions of factors causing MIs differed from the biological ones proposed in the biomedical model of illness. Stress, worry, and overwork were perceived by patients as the most important cause of their MI. Thus, if programs are based on differing fundamental beliefs, it may not be possible to meet the expectations of either group.

As well, patients' perceptions of their learning needs while in a coronary care unit, post coronary care unit, and at home have been assessed (Wingate, 1990). Though this study, conducted by Wingate, does not address cardiac rehabilitation programs, the importance of recognizing and integrating patients' perceptions into post-MI programs to facilitate the learning process and enhance recovery is suggested. The actual results of this study, however, are questionable as there was repeated use of the same instrument by the same patients for each of the three assessments, and, furthermore, low alpha coefficients of some sub-scale categories were reported.

Chan (1990) also studied patients' perceptions regarding seven specific content areas commonly included in cardiac teaching. The purpose was to determine how important and realistic it was to learn this content in hospital and up to two weeks following post-MI discharge. Though the studied perceptions were not ones voiced by the MI individuals, they ranked these perceptions in importance. The areas of medications, anatomy and physiology, and risk factors received the highest mean ratings. Duryée (1992) reviewed literature on inpatient education written between 1975 and 1989 and found similar results regarding what information patients identify as most important. Risk factors were identified as the primary patient concern followed by medications, home activity, and symptom management. Generally, explanatory questions were perceived as being less important than management questions. In another study in which MI patients were interviewed and asked to indicate their learning needs while hospitalized, the authors reported that MI patients were often discharged home with unanswered questions, again mostly related to management at home (Liddy & Crowley, 1987). There is therefore an effort being made to gather information from the patient's perspective while hospitalized.

Patients' perspectives on making life-style changes were also studied (Frenn, Borgeson, Lee, & Simandl, 1989). Factors that enabled or disabled change were examined in this qualitative study which revealed a process of life style change. Indications were that proposed changes were not by personal choice, though they were seen as necessary. What was expected from a rehabilitation program was not addressed.

Additionally, the influence of a post-hospitalization nursing intervention on post-MI regimen adherence and societal adjustments was assessed (Miller, Wikoff, McMahon, Garrett, & Ringel, 1988). The intervention was the development 30 days post-discharge of health goals by the patient, spouse, and nurse that were suited to the patient's life situation. Findings of this quasi-experimental study contrasted to predictions as the intervention did not make a significant difference in adjustment or adherence. Also, it is not known if patients were the real decision makers for the determined goals. This may have influenced the outcome.

Some studies do therefore reflect an interest in patients' rehabilitative needs and perspectives while in hospital and at home and even indicate patient involvement in setting goals. However, in program planning, if the topics that patients perceive as being important to them, that reflect their health values and beliefs, are not included, they may not be motivated to achieve goals they perceive as less than desirable.

Factors Affecting Individuals' Expectations of Cardiac Rehabilitation Programs

Specific patient characteristics may influence their expectations for cardiac rehabilitation. Women's expectations may differ from mens' as there are some indications that the experience of recovery differs according to gender (Boogaard, 1984; Parchert & Creason, 1989). Boogaard found that women resumed activities sooner which required greater energy expenditure than men, and that family members waited on men during the rehabilitation period but women resisted being helped. Parchert and Creason reviewed the literature on women with cardiac disease and found that women's activities post-MI are primarily anaerobic household duties whereas men engage in aerobic activities such as walking. Both studies indicated that fewer women than men enroll in rehabilitation programs; that sexual relations are resumed later by women than men, and that fewer women engage in sexual activity again; that both women and men experience depression; and that women experience guilt about not being able to resume household activities, whereas men expressed no guilt during rehabilitation.

Patients in different developmental stages of life also reflect differing perspectives following a MI (Meyer, 1983). Meyer, who limited his study to middle class white males, found that men in early adulthood saw the event as a major crisis in their lives but made no great changes; in middle adulthood had a rebirth-type of experience and made major life changes; and in late adulthood accepted the illness as part of their aging process. He also found differences in these groups in their perception of cause of the MI, their view of personal mortality, their family and marital relationships, and how they felt with regard to peer comparison. MI individuals may, therefore, have different expectations and goals for cardiac rehabilitation depending on their developmental stage of life.

Present rehabilitation goals "do not necessarily reflect the goals of the patient with MI" (Johnson & Morse, 1990, p. 134). Patients express uncertainty about their progress, abilities, and future; and wish to learn about the heart to reduce anxiety. Though patient education in rehabilitation programs, which generally includes these topics, is recognized as an important influence on health outcomes, the enlistment of patients in their own recovery and the support of their self-care behaviours is essential (Raleigh & Odtohan, 1987).

Sexual activity is one area about which patients express uncertainty. Sexual counselling following a MI is considered essential for patients in a cardiac rehabilitation program (Gondek, 1983; Stewart & Gregor, 1984). Women with coronary artery disease request specific types of information about sexual activity such as when sexual intercourse can be safely resumed, whether they should be fearful about sexual activity, how to reassure fearful partners, how medications might affect sexual activity, and what form of contraceptive would be best for a cardiac patient (Baggs & Karch, 1987). Though it is not known if men have similar concerns, Baggs and Karch's study clearly indicates that patients do have specific questions for which they seek answers and/or information.

Likewise, self-perceived educational needs of MI patients have been identified by Moynihan (1984). Patients responded to a questionnaire designed to reflect current educational components of organized cardiac rehabilitation programs from the time of hospital admission to return to previous occupation. The educational needs reported from hospital discharge to return to previous productive life-style, in order of importance, were hobbies, sexual activities and limitations on activity, medical follow-up and emotional response, discharge activities and pulse taking, education of family and friends, risk factors, medications, and diet. These self-perceived educational needs were found to be congruent with organized cardiac rehabilitation programs. This study, though limited in size (17 subjects) and scope, reflects to some degree the answer to the question of what individuals who experience a MI expect from a CRP.

Expectations of Individuals Following Myocardial Infarction

Expectations related to some aspect of MI individuals' lives have been explored. However, those that were studied were, with one exception, not related to expectations for cardiac rehabilitation programs.

Group process expectations were studied using a Lieberman Group Process Expectations Questionnaire with 11 group process items to define what MI patients considered important in group therapy (Stern, Plionis, & Kaslow, 1984). For the 36 MI patients in this particular study, learning positive qualities was ranked highest. Getting insight from the past, experimenting with new behaviour, and receiving advice completed the expectations considered the most important both before and after the 12 weeks of group counselling. Items considered the least desirable were revealing secrets, experiencing negative feelings, and becoming anxious and depressed. These expectation items were suggested, not by the MI individuals, but by health care professionals.

Expectations for future recovery were examined for potential improvement in relation to whether or not MI patients sought a cause for their condition (Lowery, Jacobsen, & McCauley, 1987). As well, in a study of 249 patients, expectations for future functioning pertaining to perceived consequences of a MI were assessed. A 29-item questionnaire with four different scales for reduced autonomy, physical ability, work capacity, and emotional stability was used (Maeland & Havik, 1987). It was found that these four measures of patients' appraisal were strongly related to later work problems and that the expectations pertaining to future work capacity were strongly associated with actual work status.

Havik and Maeland (1987) also concluded that patients with higher formal education and income had less negative expectations, that positive expectations were associated with better outcome, and that higher levels of health problems pre-MI contributed to more negative expectations. From the same study, Maeland and Havik (1989) also determined that age did not influence patients' expectations about outcome; those with more education had higher expectations; and female patients had less optimistic expectations about future functioning. They also suggested that a pre-hospital discharge education program be established based on patients own expectations for MI outcome and that an expectation questionnaire be given to patients during hospitalization to determine expectancy of recovery; and then to base rehabilitation on the indications of this questionnaire (Maeland & Havik, 1989). Expectancies sought were for outcome and not program expectations.

Expected outcomes were also considered by Meagher (1987) using an Expected Outcome Questionnaire. This questionnaire was developed using selected questions from the McMaster Health Status Index and altering them to elicit expectations of MI patients for their functional health status, that is rehabilitation outcome, eight weeks post-MI with levels of expectation consisting of poor, fair, and good. In this pilot study of 19 MI patients, no relationship was found between either the MI patients' prognostic expectations or the medical severity of the MI, which was also assessed, and functional health status eight weeks following a MI. The author suggested that nurses should assess patient expectations in relation to other determinants and identify reinforcements that are particular to the patients and their optimum level of functioning.

Expectations of the results of treatment and their relationship to MI individuals returning to work were discussed. Cay and Walker (1988) recommended assessment of psychological problems following a MI including assessing expectations because "psychological reactions are unrelated to physical state or severity of infarction; they are linked to the patient's expectations of environmental problems especially those connected with return to work" (p. 75).

Faller (1990) explored expectations patients hold with regard to the rehabilitation program from a cognitive-emotional perspective related specifically to what role anxiety and denial play as a response to a MI. Minimal information on this aspect of the study was presented. For both physician treatment and the rehabilitation program, patients "emphasized the improvement of their health status by means of medical treatment and information. Psychological support was only rarely mentioned" (pp. 13-14). Specifically about a rehabilitation program, the topics mentioned were recovery, information, change in way of living, and relaxation. Faller also indicated that, from the patients' view, the program was designed to fulfil the "magical wish to undo the heart attack, in fantasy as well as in reality" (p. 16). Thus, though expectations for MI individuals are mentioned, they are not in the context of CRPs, nor are they very enlightening.

In summary, little research has been done from the perspective of post-MI individuals on cardiac rehabilitation programs. Studies that do reflect their viewpoints do not address their expectations when entering these programs. It is evident that this is a very important area to study in order to ensure that the aims of rehabilitation programs will be congruent with the expectations of the post-MI individual. Therefore, the next logical step in the development of knowledge related to the nursing care of individuals entering cardiac rehabilitation would be to determine the expectations of program participants.

CHAPTER III

Method

Design

A descriptive design was used to determine and describe the expectations post-MI individuals had upon entering a cardiac rehabilitation program.

Sample

The subjects were post-MI individuals scheduled to enter the Northern Alberta Cardiac Rehabilitation Program at the Glenrose Rehabilitation Hospital in Edmonton, Alberta from October, 1991 to May, 1992. The program conducted at this unit is designed for individuals who have experienced various cardiac events including MI, angioplasty, bypass surgery, and angina. A convenience sample of 31 subjects who met the following selection criteria, were included. These criteria were individuals who:

1. had experienced a MI for the first time, were three to seven weeks post-MI, and had not received an angioplasty or by-pass surgery;
2. were 18 years or older;
3. had the ability to read and speak English;
4. voluntarily signed an informed consent; and
5. resided within a 25 kilometre radius of the centre of Edmonton.

Access to Sample

Access to the sample was obtained in the following manner:

1. The researcher met with the Medical Director and the Unit Manager of the Cardiac Rehabilitation Unit at the Glenrose Hospital to explain the study and the selection criteria.
2. Names and phone numbers of potential subjects were obtained from the Unit Manager or a designated staff member. Subjects who met the selection criteria were contacted by phone and given a brief explanation of the study and their individual role (Appendix A).
3. Subjects who verbally agreed to participate in the study were then visited by the researcher in their home or, as was the situation for two participants, at a mutually agreed upon place, at a suitable arranged interview time. A home visit prior to attending the program was selected as the best option for two reasons. The rehabilitation unit influence would remain minimal and be less likely to bias responses; and an approach putting few physical demands on the individual might enhance their interest in the study. An explanation of the study was repeated and a written consent to participate was obtained (Appendix B).

Instruments

A semi-structured tape recorded interview using open-ended questions (Appendix C) and the Expectation Assessment of Post-Myocardial Infarction Individuals for a Cardiac Rehabilitation Program Questionnaire (EAPICRPQ, Appendix D), a Likert scale questionnaire (EAPICRPQ, Part One) were used to collect data. Demographic data (EAPICRPQ, Part Two), participant information (Appendix E), and health status information (Appendix F) about each subject were collected to assist in identifying specific characteristics of the sample.

The open-ended interview questions were devised to elicit individuals' responses related to their perception of their MI, their present circumstances in relation to their MI, their goals following the MI, their existing knowledge of cardiac rehabilitation programs, and their perception of why and for what purpose they plan to attend a program. The questionnaire was devised to determine the level of expectation in relation to topics already included in existing programs.

The EAPICRPQ was initially developed by including topics consistently found to be part of established programs as determined through a literature review and topics further suggested by consulted practicing cardiac rehabilitation nurses. Responses to the EAPICRPQ-Part I, each item of which represented possible program content, ranged from one to five and reflected the expectation participants had for each statement. On the five point scale, number "**1**" represented "**Do not expect at all**", "**2**" represented "**Unlikely**", "**3**" represented "**Uncertain**", "**4**" represented "**Probably**", and "**5**" represented "**Absolutely expect**". The questionnaire was examined by two nursing faculty members whose specialty is cardiac nursing and by the Education Coordinator of the Cardiac Rehabilitation Unit at the Glenrose Hospital.

In order to establish face and content validity, the EAPICRPQ was given to eight content experts: two hospital cardiac rehabilitation nurses; a nurse manager of a cardiology unit; a nurse in charge of a cardiac exercise rehabilitation lab; a cardiac clinical nurse educator; and a unit manager, staff nurse and research coordinator from a cardiac rehabilitation program. These experts were asked to respond to relevancy, clarity, and representativeness of each item.

Content validity of the questionnaire was determined by a 90 percent agreement among the expert reviewers of the items. Revisions were made to content and format as required such as including the words "chest heaviness, tightness, or pain" to help describe angina; specifying counselling as being supportive and given by a social worker or psychologist; and redesigning the directions to participants so that each point on the Likert scale was described. To promote subject understanding of the content of the questionnaire, items were submitted for assessment through the "Write-righter" IBM computer program. This established that the questionnaire readability index was 4.68. Internal consistency for the questionnaire with the study sample was established as .9038 using Cronbach's alpha coefficient.

Items comprising the EAPICRPQ were pilot tested on the first five subjects consenting to participate in the study. Comments were elicited from participants of the pilot study in relation to:

1. wording and presentation of the questionnaire;
2. clarity of directions;
3. applicability, lack of ambiguity, and ease of understanding of items; and
4. response time taken.

Based on these comments, minor modifications were made to the questionnaire. This included adding spaces for metric measurements for height and weight on the Health Status Information sheet; and revising the item, "number of children at home", so that the response, "none", preceded any number in the given choices. Further, to enhance reliability, all interviews were conducted by a single interviewer.

Data Collection Protocol

The following procedure was employed with all subjects who agreed to participate in the study. First, once a subject agreed to participate in the study, a specific time and date were arranged that was convenient with the subject to visit in their home, or at a mutually agreed upon place. Second, in the subject's home, or the mutually agreed upon place, a detailed explanation of the study was presented giving the subject an opportunity to ask questions. Third, a signed written informed consent was obtained from each subject. Fourth, the researcher verbally gave pre-determined instructions about the interview, the questionnaire, and demographic information to be collected. Fifth, the tape recorded semi-structured interview was conducted, generally lasting from 30 to 60 minutes. Sixth, subjects were given the questionnaire (EAPICRPQ) to complete which took approximately 20 minutes.

Data Analysis

Descriptive analysis, specifically content analysis and descriptive statistics, was used to summarize the data.

The tape recorded interviews were transcribed and then assessed by the researcher for accuracy. Content analysis was used to organize the unstructured data from the open-ended interview questions. Themes were looked for within each of the six guiding interview questions and were verified by the thesis supervisor. Frequency tabulations for the categories were developed and indicated how often each response occurred. Each question consisted of several major categories of responses that provided an answer to the question and accounted for all the information given by the participants. Statements by the interviewer and any others present were not considered to be a unit for analysis unless they were repeated by the participant.

Descriptive statistics were used to report central tendencies and variations obtained from the questionnaire (EAPICRPQ) responses. Possible relationships between expectations and specific characteristics of the participants were examined using Pearson product-moment correlations (SPSS^{x}, 1992).

Ethical Considerations

The rights of subjects in this study were protected in several ways. Approval for the study was obtained from the Ethics Review Committee of the Faculty of Nursing, University of Alberta, and the Research Committee of the Glenrose Rehabilitation Hospital. Voluntary participation was stressed and subjects were advised that they were free to withdraw from the study at any time. The purpose of the study and the extent of involvement of participants was explained to each subject at the time of the initial telephone contact (Appendix A) and again prior to the interview, and was recorded on the consent form. Those who consented to participate in the study were asked to sign the informed consent (Appendix B). To maintain confidentiality, no names appeared on the data collected which was identified simply by a code number. Any identifying information on the transcriptions was deleted. Names and addresses of subjects, and the interview tapes, were kept in a separate locked file and destroyed on completion of this investigation. Participants were advised that the findings of the study will be published and that their anonymity is protected as there is no mention of the names of participants in the data analysis or discussion of results. Participants, if they desired, would be informed of the results of the study.

CHAPTER IV

Presentation of Findings

The purpose of this study was to determine and describe the expectations that post-myocardial infarction (MI) individuals had upon entering a cardiac rehabilitation program (CRP). Demographic and other descriptive information was obtained from participants. As the participants cogitated in terms of what they had experienced and the knowledge they possessed, to simply ask what their expectations were, was found to be an ineffective approach. It was therefore necessary to ascertain the background to their expectations.

To draw out this background information, post-MI individuals were interviewed. They were asked to talk about their MI experience, their present concerns, and their goals; how they had become acquainted with CRPs, and how their decision to attend was made; their present understanding of CRPs; and, lastly, what their own expectations were as they entered a program.

Further, to assess the expectancy of the post-MI individuals for the content of CRPs, participants rated their level of expectation for statements in the Expectation Assessment of Post-Myocardial Infarction Individuals for a Cardiac Rehabilitation Program Questionnaire (EAPICRPQ). The EAPICRPQ reflects goals established by health care professionals. Comparison of this information with expectations expressed in the interview revealed potential discrepancies between the participants and health care professionals' goals for CRPs.

Finally, in order to increase understanding of the expectations of the MI individuals, potential relationships between the demographic and health status information, and the expectation responses from the EAPICRPQ, were considered.

Description of Participants

Thirty one individuals who had experienced a first myocardial infarction (MI) participated in the study. Interviews took place three to seven weeks following their MI (mean = 4.613, standard deviation [SD] = 1.160). Participants' ages ranged from 42 to 79 years. The highest percentage (38.7%) of participants were in the 51 to 60 year old range and, of the total, only three (9.7%) were women (Table 1). Thirty (96.8%) were Caucasian and one a non-Caucasian. The majority (51.6%) had completed high school, and were married (67.7%); only 25.8% had children who were still at home; and the annual income per household most frequently reported (n = 10) was between $20,000 to $29,999 (Table 2).

The number of participants either retired (n = 14) or employed fulltime (n = 14) before their MI was equal, and made up 90.4% of the sample. One was unemployed and two were employed part-time. As shown in Table 3, participant

Table 1

Relationship Between Age and Gender of Participants

Age	Gender Male	 Female	Percent
41 to 50 years	3	1	12.9
51 to 60 years	10	2	38.7
61 to 70 years	9	0	29.0
Over 70 years	6	0	19.4

occupations were varied and included professionals (n = 10), skilled workers (n = 14), and labourers (n = 7).

The number of days that participants spent in hospital for their MI ranged from seven to 14 with a mean of 9.839 (SD = 2.131) (Table 4). The location of the highest number of infarctions for these 31 participants was in the inferior aspect of the myocardium (n = 12, 38.7%) with the next highest being located anteriorly (n = 6, 19.4%). Four participants' infarctions (12.9%) were located inferoposterior, three (9.7%) anteroseptal, and two (6.5%) posteroinferior. The remaining four participants had infarctions located in the lateral, apical, anterolateral, and inferolateral regions of the myocardium. Ten participants (32.3%) experienced complications related to their MI (Table 5) and only 29.0% of the participants were exempt from other medical problems. Seventy-one percent experienced the medical conditions listed in Table 6.

Table 2

Characteristics of Sample

Characteristic	Frequency	Percent
Education Completed		
Grade school	5	16.1
High school	16	51.6
Vocational school	7	22.6
College	3	9.7
Marital Status		
Never married	2	6.5
Married	21	67.7
Separated	1	3.2
Divorced	3	9.7
Widowed	3	9.7
Other	1	3.2
Number of Children at Home		
None	23	74.2
One	7	22.6
Two	1	3.2
Annual Income per Household		
$10,000 to 19,999	5	16.1
$20,000 to 29,999	10	32.3
$30,000 to 39,999	4	12.9
$40,000 to 49,999	7	22.6
$50,000 to 59,999	4	12.9
greater than $60,000	1	3.2

Participants also provided information on their social support systems. The majority, as recorded in Table 7, indicated that the level of their family support was high (80.6%) and that religious beliefs were highly or moderately

Table 3

Occupation of Participants

Professional (32.2%)	Skilled (45.2%)	Labourer (22.6%)
1. Nurse (R)	1. Shipping/ Receiving Warehouseman (FT)	1. Heavy Duty Mechanic (R)
2. Engineer (R)	2. Electrician (PT)	2. Taxi Driver (FT)
3. Sales /Management Cedar Homes (FT)	3. Carpenter/ Maintenance Manager (R)	3. Caretaker (FT)
4. General Manager/ Purchasing and Sales for Wholesale /Retail Company (FT)	4. Communications Supervisor (R)	4. Maintenance /Construction (FT)
5. Office Manager /Accountant (FT)	5. Golf Course Manager (FT)	5. Farming (R)
6. Sporting Goods and Gunsmith Shop (R)	6. Steam Engineer (R)	6. Construction Work (U)
7. Project Manager (FT)	7. Butcher (R)	7. Parks Department Grounds Keeper (R)
8. Hotel Manager /Owner (R)	8. Steam fitter (R)	
9. Superintendent Chemical Plant Office/ Occupational Health (R)	9. Plumber (PT)	
10. Manager (FT)	10. Train Conductor (R)	
	11. Inventory Coordinator (FT)	
	12. Technical Inspector Aircraft (FT)	
	13. Transit Operator (FT)	
	14. Electrical Construction Foreman (FT)	

Note. R = retired; FT = full time; U = unemployed; PT = part time.

significant (83.9%) to them. During the interview, references to family members focused on them being supportive (n = 2) and also being affected by the participant's MI (n = 2). Other participants reported

Table 4

Days in Hospital

Number	Frequency	Percent
7	6	19.4
8	3	9.7
9	5	16.1
10	6	19.4
11	4	12.9
12	3	9.7
13	2	6.5
14	2	6.5

families being caring, responsive, anxious, worried, bothered, and concerned. One mentioned that his wife didn't trust him yet, and another that this experience had brought the family closer together. Participants also mentioned friends who said they couldn't understand why the participant had a MI (n = 3) and were now considering their own situation and vulnerability for a MI (n = 2).

Participants' Experience of the MI

To help participants focus on, and to place the development of the post-MI individual's expectations for a CRP in it's context, participants were asked about the meaning of this experience for them. In responding to this query, participants talked about their pre-hospitalization, hospitalization, and post-hospitalization experience. They

Table 5

Complications Related to Myocardial Infarction

Complications	Number
Mitral regurgitation	1
Two episodes of hypotension	1
Transient ventricular arrhythmias, decreased K level	1
Mild CHF, pericarditis, transient hypotension, persistent sinus tachycardia	1
Cardiac arrest	1
Cardiac failure	1
Angina (readmitted with this)	1
Pulmonary bleed (on anticoagulants)	1
Cardiac failure, short runs of ventricular tachycardia	1
Heart block (external pacemaker)	1

also shared changes that had taken place since their MI, and their perceptions of their MI.

Pre-hospitalization Experience

When asked what 'having the MI' meant to them, 74.2% of participants (n = 23) began by referring to the time prior to their MI. They experienced symptoms (Table 8), the most frequent of which was pain (n = 13). Eleven participants said they did not recognize these as symptoms of a heart attack. Two participants, upon reflection, did recall

Table 6

Other Medical Conditions of Participants

Medical Conditions	Frequency
Arthritis	6
Diabetes	4
Hypertension	3
Angina	2
Asthma	2
Cancer a. prostate - 1 b. bowel - 1	2
Mild COPD	1
Mild Hypercholesterolemia	1
Osteomyelitis	1
Obesity	1
Depression	1
Ankalosing spondylitis	1
Degenerative Disk Disease	1
Emphysema	1
Spastic Colon	1
Hypothyroidism	1
Chronic Smoking	1
Degenerative Spine	1
Prostate Surgery	1
Colitis	1
Brain Aneurysm (2 years ago)	1
Irregular Heart Beat	1
Underlying Aortic Regurgitation and LV Dilation	1
Bronchitis	1
Total participants with other medical conditions	22

Table 7

Sources of Social Support

Source	Frequency	Percent
Family Support		
High	25	80.6
Moderate	5	16.1
Low	1	3.2
Religious Beliefs		
High	10	32.3
Moderate	16	51.6
Low	3	9.7
None	2	6.5

Table 8

Symptoms Reported Preceding the Myocardial Infarction

Symptoms	Frequency
Tiredness	5
Not feeling well	4
Pain (associated with MI)	13
Numbness in arm	1
Toothaches	1
Angina	3
Difficulty breathing	4
Difficulty sleeping	3
Sweating	5
Pressure feeling	4
Nausea	3
Feeling hot	1
Unconsciousness	3
Symptoms not recognized as a heart attack	11

problems that were probably warning signs of the impending MI. One said he "... had problems with gas" when he was "... shovelling snow or anything" and the other said he had "... all the signs of a heart attack months before it happened". Many noted the unexpectedness of the event and recalled reactions such as surprise (n = 9) and shock (n = 7) (Table 9). Participants also acknowledged difficulties in accepting that they really had a MI (n = 5), and several (n = 7) repeated the phrase, "I've had a heart attack". Others said they had "rejected" it, couldn't "imagine" it, would "have to get used to it", or that "I can't believe it was me". The experience prior to the MI therefore had a place in the meaning of the MI to the participants.

Hospitalization Experience

Participants talked about their hospital experience. Eight mentioned they had been in Intensive Care. Some mentioned having a stress test (n = 8) and commencing activities, such as walking (n = 2). Five were emphatic about their wish to get out of hospital and five described decreased memory function, including problems remembering (n = 3) and in understanding or recalling information they had been given (n = 2). Two described their MI experience as different, one as weird, and another that it "really knocked me down". One participant was troubled during the night by hunger and another by lack of sleep.

Table 9

Unexpectedness of the Myocardial Infarction

Descriptive Phrases	Frequency
Surprise	9
Shock	7
Never expect a heart attack	4
Happen to me	4
Never happen to me	4
Other guy, not me	3
All of a sudden	3
Out of the blue	2
No indication	2
Any time, any body	2
No warning	1
Never suffered from the heart	1
Hadn't been ill at all	1
Just about fell out of my chair	1
What's going on here? I don't know	1
Not even thinking about it	1
Too young	1

Some participants mentioned topics about which they had specifically received instruction while in hospital. Diet was most often reported (n = 5). Exercise (n = 4) and things that "should" be done (n = 4) were reported fewer times, while information on the cause of MI was reported three times. Medications, stress, and things that "shouldn't" be done were each mentioned two times. Items mentioned only once by participants were "things to do", "instruction about the heart", "prevention of heart attacks", and "a walking program". Participants indicated that this information had been presented by classes (n = 4); a book (n = 3); their physician (n = 2); or in brochures or pamphlets (n = 1), films or tapes (n = 1) or in discussions (n = 1). One participant also simply reported that she didn't receive much information.

Post-hospitalization Experience

Participants also considered what had happened to them since their hospital discharge and what that meant to them. About one third (n = 10) reported some knowledge of the area and extent of damage to their myocardium, nineteen (61.3%) assessed their overall knowledge about their heart attack as "some", and sixteen (51.6%) indicated knowledge of the severity of their MI (Table 10). Almost half (n = 14) of the participants revealed some concern with death. Nine were very explicit, such as, "if I'm gonna die then get it over with"; while five made only indirect reference to it, such as, "you're here", meaning that he was still alive. Participants also used terminology familiar to them, such as, "the heart being like a car motor", to help describe aspects of their heart attack (Table 11).

Eleven participants (35.5%), on the Health Status Information sheet (Appendix F), reported physical problems they were presently experiencing (Table 12). Additionally, during the interview, one participant revealed problems with

Table 10

Individuals' Knowledge of Their Myocardial Infarction

[a] Area and Extent of Damage	Frequency	Percent
Know	10	
Do not know	2	
Vague Damaged your heart Came out of it in good shape	2	
Overall Knowledge of MI		
None	2	6.5
Little	9	29.0
Some	19	61.3
A lot	1	3.2
Knowledge of Severity of MI		
Do not know	15	48.4
Mild	4	12.9
Slight	1	3.2
Moderate	8	25.8
Very	3	9.7

[a] Frequencies are for responses given during the interview and are not representative of the entire sample.

stumbling and another that his "legs were just beat". Nine participants also mentioned angina. Five said they had experienced some angina and four said they hadn't had any since their hospital discharge. In Part Two of the EAPICRPQ, all participants responded to the question about angina. Seventeen participants (54.8%) reported experiencing chest discomfort or pain, or angina; four (12.9%) rated it as being moderate, and 13 (41.9%) as being small. Two (6.5%)

Table 11

Descriptions of Aspects of Myocardial Infarction

Descriptive Phrase	Frequency
Heart continuously working A muscle that's damaged - has to work and still repair itself Can't really give total rest because it is pumping all the time	2
Have that injury, no way to change that	3
Clot	1
The key is to heal it right .. it's gonna develop a scar tissue	1
Angina .. is a kind of a heart attack	1
Isn't .. easy to tell who's having a heart attack	1
Heart is .. the main thing .. like in a car the motor	1
Like oil in a car .. got too thick	1

said they experienced angina frequently and 15 (48.4%) only occasionally. Participants offered information on how they were feeling physically and their perceptions of their physical progress since their MI (Table 13). Over half of them (51.6%) said they were feeling good and eight (25.8%) indicated positive progress in that they were improving, getting better, or feeling better.

Some participants commented on their need to restrict their activities as well as their present level of activity (Table 14). Some indicated they had to "take it easy" (n = 6), and others felt their activity exceeded the given restrictions (n = 8).

Table 12

Present Physical Problems

Problems	Frequency
Drainage from osteomyelitis in leg	1
Arthritic pain in lower back	1
Pain in knees when walking	1
Some generalized moderate arthritic pain	1
Visual disturbances, different sensory phenomena experienced in head	1
Pain from gout/arthritis in legs and back	1
Back pain	1
Swollen scrotum and right leg from prostate CA; pain free as controlled with MS Contin	1
Back ache	1
Sinus problems, gastric hyperacidity	1
Weakness from waist down, swelling in ankles	1
Total participants with present physical problems	11

Participants also mentioned activities for which they had been given instructions. The number of activities they were specifically instructed not to engage in (n = 28) exceeded the ones they were to decrease (n = 1) or to do (n = 1). The activities most often reported not to engage in were shovelling snow (n = 8) and lifting (n = 4). Other

Table 13

Physical Assessment Since Myocardial Infarction

Physical Feelings	Frequency	Perceptions of Progress	Frequency
Tired	10	Sleep well	2
Energy loss		Not capable of yet doing things done before	4
Yes	2		
No	1		
Strength loss		Eating	
Yes	9	Eat well/good	3
No	1	More	2
Not very good	1	Sitting only	1
Fair	1	No different than before	6
Dizzy	1	I'm shaping up	1
Weakness	6	Improving	1
Feel good	16	Can't feel any limitations right now	1
One hundred percent	1	Return to normal	6
Okay	4	Getting better	2
Fine	2	Feel better	5
Great	2		
Well	3		
Healthy	1		

activities to avoid, that were reported more than once, were vacuuming (n = 3), housework (n = 3), yard work (n = 2), and arm movements (n = 2). Activities to abstain from doing, that were each reported only once, were running up and down stairs, washing the car, skiing, hot showers, exciting

Table 14

Perceptions of Restrictions and Activity Levels

Perceptions	Frequency	Activity	Frequency
Take it easy	6	Not doing anything	3
Watch myself	3	Haven't done anything	2
Not overexert myself	1	Doing things within restrictions	5
Not push it	3	Doing things beyond given restrictions	8
Slow down	1		
Be careful	2		
Not abuse myself	1		

events, and exercising at the present time. Two participants simply mentioned that there were activities that they "shouldn't do" and two said there were things that they "should do". One participant was told to decrease his walking. Only one person reported an activity they could do, which was light dusting. Also, out of respect for family fears of something happening to them, two participants observed that they "should not walk alone in the ravine".

Changes Since MI

Participants indicated that they were experiencing or had experienced changes since their MI. Comments reflected actual changes, decisions that changes weren't necessary, purchases made, and some anticipated changes resulting from the MI. The most frequently reported changes were in activity, such as, starting a walking program (n = 13), not driving the car (n = 10), and resting (n = 9) (Table 15).

When food consumption changes were mentioned, decreasing fat (n = 14) and decreasing salt (n = 14) intake were referred to most frequently. Two participants indicated they didn't need to change fat consumption and five indicated that their salt usage didn't have to change. Other food related changes mentioned were decreasing cholesterol (n = 6) and cheese (n = 1); not eating so much meat, particularly beef (n = 4); and using skim milk (n = 1) and polyunsaturated products (n = 2). Five participants said their eating habits changed, and five stated that they did not have to make major changes in their diet. One said there was a "big diet change". Two said they were already sticking to a diet and one that his change was to eat more. Two participants now watch what they eat, two eat proper foods, and one now avoids fast foods. Three participants mentioned food changes but did not specify what these were. Three also mentioned that they now read labels for food ingredients.

Participants also mentioned alcohol and coffee consumption. Two stopped drinking alcohol and two decreased their alcohol intake. One said he "did not drink anyway, so didn't have to change that". One participant had stopped drinking coffee and another had decreased the amount consumed.

Table 15

Activity Changes Since Myocardial Infarction

Changes	Frequency
Started to exercise	4
Started a walking program	13
Using the treadmill every day	1
Up the stairs	1
Stopped playing cards	2
Cancelled a trip	5
Can't travel just now	1
Can travel now	1
Couldn't drive	10
Can't drive as far	1
Slowed down	1
Sleep during the day	3
Rest	9
More relaxed than before heart attack	1

Eleven participants (35.5%) referred to medication changes, ranging from starting on drugs since the MI, to having different ones prescribed. Various comments (n = 14) from these individuals included having "different medication" prescribed (n = 1); taking medications (n = 2); taking aspirin (n = 3); having nitroglycerine readily available to use (n = 6); and citing other medications by name (n = 2).

Additionally, smoking was mentioned by participants during the interview. Six different comments about their smoking status were offered by 12 of the participants (38.7%) (Table 16). The majority of participants (n = 26) reported on the Health Status Information sheet that they had been or still were smokers at the time of their MI. Of these, 10 were smoking at the time of their MI; four still smoke, and six have not smoked since their MI, as reported in the EAPICRPQ-Part Two (Table 16). The other 16 reported quitting from one to 50 years prior to their MI.

Participants also talked about anticipated changes which might result from their MI, several of which were broad and somewhat vague. The most frequently reported potential changes were weight loss (n = 5) and unspecified job related changes (n = 3). Five mentioned they anticipated changes for the future but did not elaborate. Individual changes foreseen were in habits, goals, exercise, walking, physical activities, the "way of doing things", using the "mind rather than muscles", "focus in life", retirement, future plans, lifestyle, and stress. One individual said he didn't know if he was supposed to make changes, another that he didn't "do something heavy anyway", and still another that he did not expect to "change too much".

Five participants mentioned work in relation to whether or not changes were anticipated. Comments made included it being "three months before I could get back" to work; that

Table 16

Smoking Habits of Participants

Smoking habits	Frequency	Percent
[a] Smoking		
Decreased	2	
Stopped	4	
Didn't smoke for a long time	2	
Quitting	1	
Smoking	1	
Don't smoke	2	
Before MI smoking was		
Frequent	9	29.0
Occasional	1	3.3
Never	21	67.7
Since MI smoking is		
Occasional	4	12.9
Never	27	87.1

[a] Information presented during the interview. Numbers differ from those obtained from Health Status Information sheet as not all participants discussed smoking during the interview.

there would be "decreased duties" when she was back on the job; that the "heart attack affects me" getting a job; that he "planned on retiring" so there wouldn't be a change; and that there "shouldn't be changes in work". Five participants also commented on actual purchases that had been made as a result of the MI. These were buying special cookbooks (n = 2), an exercise bike (n = 1), video tapes on stress and walking (n = 1), and books to "read about what's happened to me" (n = 1).

Perceptions of MI

Participants described various perceptions and subsequent reactions to the MI. They reported experiencing a variety of feelings since their MI. The feelings most frequently reported were frustration (n = 7) and fear (n = 5). Three said they were depressed and three that they weren't, one that he was worried and five that they weren't, one that he was not angry, and three that they felt "different". Two were scared, and two were annoyed that the MI wasn't diagnosed sooner. Other feelings reported once only by individuals were dread, terror, dismay, anxiety, apprehension, concern, edginess, "it bugs me", excitement, boredom, being upset, loss of self-confidence, helplessness, being "sorry for myself", and being "burnt out".

Participants' comments about their perceptions of their MI generally differed. "Hard" (n = 5), "difficult" (n = 3), and "a warning" (n = 3) were terms most frequently used to express how the MI was perceived. Two participants saw the MI as "a sickness", two as "loss of health", two that it was "not easy", and two that "it was time consuming". Less frequently reported perceptions included seeing the MI as a "problem", a "crises", a "weight", a "big deal", a "learning experience", "not an every day occurrence", a "whole new world", and a "serious condition". It was also perceived as having been "ghastly", "a hell of a time", and "a hell of a blow". In assessing the effect of their MI, two individuals mentioned that they were now unable to concentrate, two that it meant changes, two that it meant adjustments, one that he was trying to get his feet back under him, one that he was getting over it now, and another that it had not affected him emotionally.

Participants further described differing reactions to the MI. These included the individual losing trust in "anything", being "shook up", "bouncing off walls", being "taken down a peg or two", having his "head down a lot of the time", and letting his "head hang down". Changes in thinking were reflected by comments, such as, now thinking "about health", thinking "has changed", thinking "of different things", and thinking "twice before acting on something". Other comments, indicating adjustments in thought processes, included having to "watch out now"; being "more aware of health"; making "you stop and think" (n = 2); and "you think of yourself".

Both positive (n = 9) and negative (n = 3) perspectives of their MI were expressed by participants. Positive views included being "fortunate" (n = 3), thankful for each day, relieved, glad, and hopeful. One individual said she would "rather have a heart attack than a stroke" and another that "worse than anything to me... [would be to be] paralysed... [or] blind". That the MI might handicap (n = 1), disable (n = 1), or incapacitate (n = 1) them, were negative perspectives expressed.

Lastly, participants also expressed reflections brought about by having a MI. The most frequent comments were about looking at life differently now (n = 4) and seeing that they needed time for themselves (n = 3). These and other reflections voiced by participants are recorded in Table 17.

In summary, participants, when thinking about the meaning of their MI, considered their experiences pre-hospitalization, during hospitalization, and post-hospitalization; changes that had occurred as a result of their MI; and their perceptions of the event. Participant identification of concerns since their MI was the next step in determining what expectations participants had for a CRP.

Participants' Present Concerns

Participants related concerns that had resulted from having a MI. This included considering the cause of their MI; the possible contributing factors; the possibility of a future MI; situations associated with their medical care; their present circumstances in relation to food and cholesterol intake, smoking, and blood sugar control; blood cholesterol levels; mobility both physical and mechanized; work; financial circumstances; age; future functional abilities and future response to their MI; and situations causing worry.

Table 17

Participants' Reflections About Their Myocardial Infarction

Reflections	Frequency
Look at life differently	4
Time needed for self	3
Nothing changed a great deal	2
Can happen to anyone	2
Vulnerable	2
Will affect my whole lifestyle	1
Not a thing really [meant to you]	1
Not finished for life	1
Looking after myself a lot better	1
Examine getting on the right track	1
Wealth .. realize that it isn't number one	1
Thinking what I do have and what I should be doing with it	1
Things I'm doing I shouldn't be doing	1
Take it easy in the future	1
Think of what you are going to do in the future	1
Makes me focus on the rest of my life now	1
Look back	1
Life is precious	1
Not take life serious	1
Valuable lesson that things can happen	1
More to life than just pushing it	1
Job has always come first in priority	1
Don't know how I kept going so long	1
Don't think about those things until something happens to you	1
Realize that you're human after all	1
No one is infallible	1

Cause of MI and Possible Contributing Factors

One of the main concerns that participants had was trying to determine the cause of their MI (n = 13, 41.9%). Eight questioned their family history as being a factor; two considered lifestyle as a factor, one thinking that it was for him and, the other, that it was not; and one suggested the cause was congenital.

Participants talked about other factors which they considered might have contributed to them having a MI. Three observed that a combination of factors was the most likely reason. These factors included some form of stress or stressors in their lives, smoking, alcohol and coffee consumption, diet, weight, exercise practices, condition of blood vessels, and personal behaviours.

Comments about stress and stressors were, overall, mentioned the most frequently (n = 46) (Table 18). Stress was considered by 15 participants to be a contributing factor, but two thought it was not. Eight different participant responses gave evidence of stressors being present. Stress and anxiety assessments from participants were reported in the EAPICRPQ-Part Two. The amount of stress participant's reported in their lives ranged from high (n = 4, 12.9%) to none, (n = 3, 9.7%) with the majority assessing their stress as moderate (n = 13, 41.9%), or low (n = 11, 35.5%). Present levels of anxiety reported ranged from high for two participants (6.5%) to none for seven

Table 18

Stress and Stressors as Contributing Factors for Myocardial Infarction

Factor	Frequency
Stress	
General	7
With job	7
No stress	2
Create own stress	1
Evidence of stressors	
Worry	4
Busy	3
Burn the candle at both ends	2
Work too hard	5
Trips [work related]	4
Long hours	6
Shift work	2
Too little relaxation/rest	3

participants (22.6%). The highest percentage of participants (41.9%, n = 13) indicated that their anxiety was moderate, and nine (29%) felt it was low.

Thirteen participants mentioned smoking as a possible contributing factor. At the time of their MI, six were smokers, five were not smokers, and two had never smoked.

Only three of the seven participants who considered whether alcohol might have been a contributing factor, actually imbibe. The other four said that, as they did not drink, alcohol did not contribute to their MI. The two participants who mentioned coffee, admitted to high consumption of the beverage. Of the 21 diet related comments, only 14 participants believed that diet may have been a contributing factor for them (Table 19).

Of the 11 participants who mentioned their weight as a possible contributing factor, five indicated that they did not think their weight had contributed to their MI, four admitted to being overweight, and two said they had lost weight. From the EAPICRPQ-Part Two responses, the majority (51.6%, n = 16) rated their weight as normal (Table 20).

The Body Mass Index (BMI) was measured for each participant. The BMI is the weight in kilograms divided by the height in meters squared. BMIs ranged from 22.3 to 34.3 with a mean of 26.829 (SD = 2.861). Results were assessed for level of risk, and equal numbers (n = 11, 35.5%) were found to be at high or moderate risk (Table 20).

Nine participants, who considered their exercise practices as being a contributing factor, indicated that their exercise had been minimal prior to their MI. Most of those who mentioned the type of exercise they had been doing (n = 20) said they had been walking (n = 11). The majority of participants, when asked about their exercise practices,

Table 19

Diet as a Contributing Factor to Myocardial Infarction

Dietary Circumstance	Frequency
Watched my food, conscious of food	5
Fast food	3
Follow that list before	1
Eat pretty well	1
Mess your diet up even when you think you are behaving	1
Eat the wrong thing	1
Not eat the right things	1
Diet changes	1
No proper breakfast	1
Not eating properly	1
Eating habits	1
Sometimes I don't eat	1
Eat once a day	1
Eating out	1
Fat	1

indicated that they were exercising frequently or occasionally prior to (83.9%) and following (80.6%) the MI (Table 21).

One participant indicated that "hardening of the arteries" might be a contributing factor and two, that their blood pressure probably was. Blood pressure (BP) risk was assessed for all participants using values obtained while

Table 20

Weight as a Contributing Factor to MI, and Weight and BMI Assessment

Weight Assessment	Frequency	Percent
Interview comments		
Overweight	4	
Not overweight	2	
Lost weight	2	
Not heavy	1	
Underweight	1	
Not a big guy	1	
Rating of weight		
Moderately overweight	8	25.8
Slightly overweight	6	19.4
Normal weight	16	51.6
Slightly underweight	1	3.2
BMI risk		
[a] High	11	35.5
[b] Moderate	11	35.5
[c] Low	9	29.0

[a] High - BMI of 27 or greater.
[b] Moderate - BMI of 25 to 27.
[c] Low - BMI of 25 or lower.

participants were at rest prior to their initial stress test in the cardiac rehabilitation program. The majority of blood pressures (80.6%) were within the normal range as seen in Table 22.

Table 21

Exercise Amount as Possible Contributing Factor to MI, Type Prior to MI, and Frequency Pre and Post MI

Exercise Information	Frequency	Percent
Amount prior to MI		
Not doing much	4	
No regular	4	
Some	1	
Type prior to MI		
Walked	11	
Did not walk	2	
Exercise at work	3	
Treadmill	1	
Running	1	
Other exercise	1	
Before MI		
Frequent	7	22.6
Occasional	19	61.3
Never	5	16.1
Since MI		
Frequent	11	35.5
Occasional	14	45.2
Never	6	19.4

Lastly, personal behaviours or characteristics were mentioned by several participants as possibly contributing to the MI. A persistent need to be active was reflected in 16 different comments, such as, "always on the move" or

Table 22

Blood Pressure Risk Factor

BP Risk	Frequency	Percent	Mean	SD
BP Risk				
[a] Extremely high	1	3.2		
[b] High	4	12.9		
[c] Normal	25	80.6		
[d] Low	1	3.2		
Total	31	100.0	2.839	.523

[a] Extremely high: > 160/100.
[b] High: > 140/90 - 100.
[c] Normal: 100 - 135/60 - 80.
[d] Low: <95/60.

"can't stay quiet". Perfectionist qualities surfaced in four different comments, such as, "want everything done right". Time awareness was evident in four different comments, such as, wanting "it done on time" and "impatient". Heavy demands on self were expressed in four different comments, such as, "take on a very heavy workload" or "no holiday for five years". Seven participants felt that they had "overdone it".

Other Concerns of Participants

Although participants' thoughts about the cause and contributing factors to their MI, were major concerns, other concerns were present as well. Participants were asked what further concerns they were experiencing, including what they considered problems or worries. Of primary concern for 14 of the participants (45.2%) was the possibility of another heart attack. Three participants mentioned the reoccurrence of angina, three the extent of heart damage from their MI, and three the abilities of themselves or professionals to recognize a future MI.

Several concerns mentioned were health care related including attendance at the CRP, physician care, and future medical procedures (Table 23). Participants were also concerned about controlling food consumption, cholesterol, blood sugar, and smoking habits (Table 24). Five (16.1%) expressed concerns about their blood cholesterol level. For all participants, their total cholesterol, low density lipoproteins (LDL) and high density lipoproteins (HDL) were examined (Table 25). When the cholesterol risk was assessed, 54.8% of participants were found to be at high risk (cholesterol >5.20 mmol/L). Over half (51.6%) of the participants had an LDL above the normal level and 41.9% had HDL's less than the normal level. Nineteen participants (61.3%), when asked to record their knowledge of their cholesterol levels, indicated they did not know this information, six (19.4%) said that it was normal, and three (9.7%) each said either that their cholesterol was high or was normal.

Some participants expressed concerns about flying and driving again while others focused on weather related problems affecting their walking programs. Several (n = 10) were thinking about their work possibilities, some (n = 3)

Table 23

Health Care Related Concerns of Participants

Concerns	Frequency
Related to CRP	
Time required to attend CRP	6
Time it takes to get into the CRP	1
Time it takes to travel to the program site	1
Getting to the CRP in winter weather	1
Having stress tests/being on the treadmill	2
Physician related	
Unhappy [with care]	1
Not seen often	2
Possible change	1
Lack of information	1
Future medical procedures	
Scan [definite]	1
Bypass [possible	1

about continuing with less active activities, and a few (n = 6) were assessing their financial situation (Table 26).

Participants had concerns associated with their MI pertaining to their age. With seven, the focus was declining health with increasing age, the MI being part of that process. For one, the concern was related to decreased work

Table 24

Concerns About Controlling Food Intake, Cholesterol, Blood Sugar, and Smoking Habits

Concerns	Frequency
Food concerns	
Enjoy food	1
Eating out and fast food ordering	1
Will be reasonable and sensible (will have a hamburger if I want one)	1
Cholesterol	
Think I'm .. one of those people that manufacture it	1
No cholesterol problem	1
Good cholesterol is a bit low	1
Things I love .. high in cholesterol	1
Diet is already low in cholesterol	1
Sugar control [four diabetic participants]	4
Quitting smoking [still want cigarettes]	3

and life opportunities with the MI occurring at such a young age. Eighteen participants also expressed concern about their present lack of independence, one about living alone, and four about future living accommodations (Table 27).

Some concerns were expressed about the future in relation to not knowing the final outcome of having the MI. One individual wondered about getting "back in shape again if that's possible" and, another, if he was "going to be

Table 25

Blood Cholesterol Risk Factor

Cholesterol	Range mmol/L	Mean mmol/L	SD	Risk	Percent
Total	3.46 - 7.60	5.246	1.048	> Normal	54.8
				[a] Normal	29.0
				< Normal	16.1
LDL	1.07 - 5.11	3.346	.921	> Normal	51.6
				[b] Normal	41.9
				< Normal	6.5
HDL	0.59 - 1.32	.923	.169	> Normal	00.0
				[c] Normal	58.1
				< Normal	41.9

[a] Total cholesterol normal range: 4.20 to 5.20 mmol/L
[b] LDL normal range: 2.20 to 3.40 mmol/L
[c] HDL normal range: 0.90 to 1.80 mmol/L

that much weaker". One worried that maybe he couldn't "do anything" and, still another, about "not getting back ta.. to ah.. normal". One feared his condition "could become so disabilitating" while another participant considered that if his "...legs wouldn't work...", he didn't "...want to be confined to a wheelchair". One thought he couldn't "walk as much as before". Other specific participant concerns reflected doubts about their future adjustment to the MI. These concerns were: "I don't want it (retirement) to be spoiled"; "I don't want to sit around and talk about my ailment"; and "I'll have to learn how to live .. live with that".

Five participants stated that they were worried. One said he worried about dying before he reached a specific

Table 26

Mobility, Work, and Financial Concerns of Participants

Concerns	Frequency
When/if to drive a car again	3
Flying again	2
Walking/exercise in non-ideal weather	
Winter (too cold)	10
Summer (too hot)	1
Work	
Not ready to retire	2
Could retire	1
Not back to work yet	1
Differences at work	1
Possible change of jobs	2
What work can I do	1
Defer retirement	1
Will I return to work	1
Less active occupations	
Reading	2
TV	1
Financial considerations	
Yes	3
No	3

Table 27

Concerns With Age, Independence, and Living Situation

Concerns	Frequency
Age	
Deteriorate .. in my age	1
Susceptible to things like that .. 60 year old	1
Getting on in age	1
Different conclusion for younger person .. 70 year old	1
Soon as you hit 65	1
Young person .. build up muscle, not for old man	1
Age is against ya	1
Young people .. opportunity to go back to school	1
Independence loss with MI	
Independent	2
Restrictions	3
Do what you wish	4
Go where you want	1
Freedom	2
Confined	1
Like a cement mixer tied to my leg	1
Tied me down	1
Rely a lot more on others	1
Do something without the aid of somebody else	1
Don't like to impose on anyone	1
Other people doing their work	2
Being alone	1
Decisions about accommodations	
Move	3
Sell	3

personal goal. Four others expressed less concrete worries, such as, something could "go wrong", he could have "bad luck", she was "afraid to look far ahead", or she would "look for a future".

Additionally, participants had unanswered questions, as a result of their MI, that concerned them and for which they were seeking answers. The highest number of questions on specific topics related to wondering why they had a MI (n = 14), such as, "why did I have a heart attack as I hadn't abused myself?"; what limitations they would have (n = 9); and if they could return to specific activities (n = 7), such as, running (Table 28). Three participants said they had questions but did not specify what these were, while two emphasized that they did not have questions.

Participants also reported various personal and physical problems including anticipated difficulties in getting adequate exercise in winter (n = 2). One voiced a personal problem relating to what exercise would be recommended for him and his concern for whether he'd wish to do that particular type of exercise. Eleven different physical problems, which were currently troubling participants, were also mentioned. For three participants, arthritis created problems; for two participants, it was sore knees; and for two others, it was swollen feet and ankles. Other physical problems were reported only once including "the skin on calves is 'hard'", stumbling, emphysema, spastic colon, stomach problems, bad back, irregular heart beat, and weakness "from waist down".

Participants' concerns therefore included the cause of, and factors contributing to, their MI; possibility of a

Table 28

Questions Arising as a Result of the Myocardial Infarction

Questions	Frequency
Why did I have a heart attack as I was	
Looking after myself	1
A golfer	2
Hadn't abused myself	1
Healthy	3
Reasonable/good shape	3
Walking a lot	1
Physical fit	1
In good condition	1
In good health	1
What are my limitations	8
What are my sexual limitations	1
How does the MI occur; how this thing comes, cause .. clot	4
Am I physically capable of participating in the CRP	3
What can I do	4
How much can I do	6
How much can I safely do	1
Am I going to be able to return to specific activities	7
Making butterflies	
Playing the organ	
Swimming	
Go on courses	
Running	
Golfing	
Hunting	

future MI; cholesterol; worries; unanswered questions; and physical problems. As a result of these various concerns resulting from the MI, participants were then asked about their future goals.

Goals Expressed by Participants

Participants shared a wide range of goals they still had for the future; some were general in nature, some activity or health related, some personal, and some referred to exercise plans after the CRP. Four participants said they had no goals, while others mentioned items that were not their goals.

In the process of sharing their goals, four participants related that they had previous experience in overcoming difficulties. Eighteen also revealed personal qualities and characteristics which they viewed as enabling factors to help them cope with their present situation and assist them in gaining their goals. For example, two participants mentioned stubbornness and two, self-control. Other qualities given were positive mental attitude (n = 7), such as, optimism; endurance (n = 2), such as, "not giving up"; and acceptance (n = 2), such as, "taking a day at a time". The remaining three characteristics were portrayed as, "I'm a rebeller"; "don't want to know about it, shelve it"; and "learn through experience".

General goals discussed by participants were varied. Twenty-one goals were prefixed by "get back to", with 10 of these referring to "things" that the participants had been doing before. Other goals focused on such areas as a desire for normalcy (n = 8), enjoying life (n = 5) and living longer (n = 6). These and other general goals are reported in Table 29.

The most frequently mentioned activity goals were related to sports and recreation (n = 45). Other activity goals included tasks, hobbies, and work. Activity goals are reported in Table 30.

Participants' health related goals focused on varying topics. These goals included changes (n = 15), such as, decreasing stress in their lives; being healthy (n = 8), such as, being in better health; and physical improvements (n = 12), such as, "to get in shape" (Table 31).

Goals specific to particular individuals were also noteworthy. Five goals were related to other people, including doing volunteer work, getting a son "on the right track", providing tangible support to a spouse going to university, having friendships with the opposite gender, and getting "back together with" the spouse. Personal goals included living beyond a specific time which indicated a safe period for a particular heart condition, acquiring items perceived as necessary for retirement comfort, achieving a specific work related goal, obtaining equipment

Table 29

General Goals Of Participants Since Myocardial Infarction

Goals	Frequency
Get back to Things/standard/energy level/speed (11/2/1/1) of before Way/where I was (3/3)	21
Pick up where I left off	1
Live same as I did before	1
Normal [prior to MI] Life (n = 4) Back normal (n = 4)	8
Independent	2
Accept some dependence on others	1
Enjoy life	5
Be happy	2
Indefinite tasks Most anything 'Everything what have to be done'	2
Increase focus on own needs	3
Decrease demands on self Not as hard Easier Not overdo	3
Spend more time with family	4
To live Another 10 years (n = 2) Lot longer (n = 1) As long as I can (n = 1) Ripe old age (n = 1) To 100 years (n = 1)	6
Go to the CRP	4
Put MI behind them	4
Pass gained knowledge to others	3

Table 30

Activity Goals Mentioned by Participants

Goals	Frequency
Sport and recreational activities such as curling, cycling, and fishing; plus walking (n = 9) and golfing (n = 7) being the most often desired (Total of 14 different activities)	45
Outdoor activities related to upkeep of home	23
Gardening (n = 9)	
Yard work (n = 5)	
Cutting the lawn (n = 4)	
Washing the car (n = 1)	
Ordinary upkeep of the place (n = 1)	
Cleaning the windows (n = 1)	
Keeping myself busy around outside (n = 1)	
Try to do a little bit at home (n = 1)	
Related to shovelling snow	7
Yes (n = 4), No (n = 1), and Don't know (n = 2)	
Indoor tasks	9
Carpenter work (n = 3)	
Painting (n = 1)	
Household work (n = 4)	
Cooking (n = 1)	
Making sausage	1
Travelling	13
Get away	2
Go away	1
Go places	2
Go where I want	2
Go when I want	2
Hobbies	14
Music, hand made objects, shopping (n = 7)	
Start or continue [not specified] (n = 4)	
Quiet pastimes (n = 3)	
Work related	7
Retire (n = 4)	
Collect pension (n = 2)	
Try one more year of work (n = 1)	
Activities [not specified]	4
Start (n = 3)	
Continue (n = 1)	

Table 31

Health Related Goals Since Myocardial Infarction

Goals	Frequency
Changes	2
Lose weight	4
Decrease stress in life	4
Quit smoking	1
Not to drink [alcohol]	2
Slow down	2
Relax	
General goals for health	8
Physical gains	
To get strong/strength	4
Put a little more muscle in my arms	1
To keep fit	1
Keep active	2
Get in shape	2
Aim for 90%	1
Get back to running	1

that would enhance treatment of another medical condition, going to diabetic classes, moving to a more satisfactory location, participating in a specific group, and obtaining an educational objective.

Three participants revealed goals for continuing with exercise after the CRP. One wondered "what to go on afterwards ... when I finish this" and talked of "... joining..." a centre and going "...on a regular basis" as "you just don't do your 12 weeks and stop". Another participant said "...then after I will join the club for exercise". The last of the three indicated that he would "...stay on the physical side of the program".

Lastly, three participants stated what they did not plan to be, which were, an invalid, crippled, or incapacitated. Two said they had "no goals for projects" or "something definite like that". Other participants referred to potential goals that they did not have, which included, making more money, "pampering myself", running, or climbing mountains. Others stated things that they did not want to happen, such as, quitting work; having major surgery (coronary by-pass); continuing as he was, unable to do some things, such as, "being like this the rest of my life"; or feeling "bad or sad" when referring to the feelings of depression experienced.

Participants' Understanding of CRPs

Participants, therefore, revealed a variety of goals. Was the CRP seen as a means for helping them achieve these goals and did participants' prior knowledge of CRPs possibly influence their expectations? With this latter view in mind, participants were asked to discuss the program in relation to who had told them about it; how their decision to attend had been made; what their initial reactions about the program were; and what they thought might occur during the program. These questions were asked of participants, as well as their reasons for attending the program.

Introduction to and Decision to Attend a CRP

Eighteen participants reported that they had been told about the CRP while in the hospital. The information participants received about the CRP was attributed to a variety of health care professionals and laymen. Physicians were reported by 71.0% of participants (n = 22) as having been responsible for some of the information they received. Participants identified others who gave them information, while in hospital, as nurses (n = 8), therapists (n = 2), dietitian (n = 1), and personnel with no position designated (n = 13). Participants also attributed information about CRPs to lay people including family members (n = 3), friends (n = 3), neighbours (n = 4), acquaintances (n = 4), fellow workers (n = 2), other patients in the hospital (n = 1), and "other people" (n = 1).

Participants recalled a variety of comments and impressions from those who had talked to them about attending the program. For instance, physicians were attributed with offering encouragement about program attendance (n = 12), a spouse with insisting on the participant's attendance (n = 1), and non-hospital people with offering neutral comments (n = 4). These and other participant recollections of possible influencing elements about CRP attendance are reported in Table 32.

Table 32

Recollections of Influencing Elements About CRP Attendance

Comments/impressions	Attributed to	Frequency
Asked if interested/wanted	Nurses	2
Thought it would be a good idea	Nurse	1
Recommended	Dietitian Therapist	1 2
Requirement (n = 7) Encouragement (n = 5)	Hospital person (not designated)	12
Encouragement (n = 12) Referred (n = 7) Should go (n = 11) Mild interest (n = 3)	Physicians	33
Suggested	Friend	1
Insisted	Wife	1
Neutral comments i.e. "telling me all about it" (n = 4) Positive assessment i.e. "apparently it is super" (n = 7) Experiential (about others who had attended) i.e. "he became stronger and stronger and felt better and better" (positive, n = 5) and "friend watches everything .. he's dying; I'm out here givin 'er" (negative, n = 1)	Non-hospital people	17

When asked who had made the decision for them to attend a CRP, 13 participants (41.9%) said they had made the decision commenting, "I made the decision myself", "I think it is my choice", or "it was up to me". Fourteen (45.2%) indicated that the decision was not theirs; two said their physicians made the decision; five said they thought they had to go, stating, "I thought it was compulsory", "I have no idea if you could say no", and "there was no option". The other seven stated the decision was not theirs indicating, "I never made any decisions", "I didn't make the decision myself", and "it wasn't my desire". Four participants (12.9%) gave ambiguous responses, such as, "I would be very willing", "I would have gone anyway", "I'm quite willing to go on it", "I didn't ask, it was just handed to me. It's something that they recommended and I agreed with".

Reaction to and Prior Knowledge of a CRP

Participants related the ideas they had when they first heard and thought about the CRP. The most frequently recurring response was that the CRP would "help" (n = 11). Seven participants said that they were looking "forward to it", four that they "would benefit from it", and four that it was a "good thing". Three believed that it was a good idea; and three thought they had already waited too long to get into the program, because they felt ready to begin now.

Additional frequent responses regarding the CRP were, "it's the right thing to do", "I'd like to go", "it's something I want", "I feel positive", "I'll get better", and "why not".

Other comments were made by individual participants regarding their initial thoughts about the program. Some focused on improvement in their condition (n = 5), such as, "I go to get it fixed", "it's gonna make me good", "it'll do me good", "it's advantageous to you", and going for "gain". Some comments reflected positive anticipation of the program (n = 9), such as, "all for it", "excited about that", "would like to get into something like that", "no negative feelings", "I was game, didn't mind", "very interested in it", "rather go", "that's great", and "glad to go there". Three comments reflected a sense of necessity in going, including, "I have to go", "normal to go", and "important for me". Two indicated that it would be a way to use their time, including, "another way to spend a little time" and "we have lots of time, no plans". Six comments had no common link with the others, such as, "don't know what to really think of it", "I have faith in the medical world", "a little nervous", "don't have to pay a single penny for that", "hope its stimulating", and "hope they're not going to be fanatic about it".

When asked about their knowledge of the CRP, the majority of participants indicated they didn't know anything (70.0%, n = 22) or only knew a limited amount (9.7%, n = 3) about the program. Five comments reflected the idea that attendance was thought to be necessary before this question about program knowledge could be answered, such as the comment from one individual who said, "I never been there. When I go there I'm gonna find out, gonna see when I get there".

Other comments about program knowledge were: it's "not to do with other health conditions"; "not anything to do with finances"; "the communication between the people themself, didn't hear anything than good about it"; and "they more or less know what's happened, ... already know of my heart attack, what type it was, where it was". Nine participants mentioned their information source for an actual CRP. They reported that it was written material or a phone call received from staff of the Northern Alberta Cardiac Rehabilitation Unit (n = 5); or books, folders, and pamphlets.

All participants shared what they thought might occur during a CRP. Content areas included informational topics, activities, and health professional's responsibilities. The highest frequency responses were exercise (n = 18) and diet (n = 11). Participant responses are recorded in Table 33.

In relation to what else was known about CRPs, one participant mentioned that program attenders could arrange their "own schedule to fit your requirement". Program length was also mentioned by ten participants but they were

Table 33

Participants' Perceptions of Program Content of CRP

Program Content Areas	Frequency
Orientation	7
Teaching	4
Learning experience	3
Information on	
Diet	11
Angina	2
Stress	3
Smoking	2
Cause of MI	1
Lifestyle	3
Weight assessment	2
Evaluation of progress	4
Counselling	1
Exercise including type; how to do it; doing it three times a week; and using bike (n = 1), treadmill (n = 6) or walking (n = 5)	18
Tests mentioned Yes (n = 1), No (n = 1), Don't know (n = 1), Blood tests (n = 3)	6
Stress test	3
Monitored (n = 3), supervised (n = 2), surveyed (n = 1)	6
Doctor (n = 4), nurses (n = 2), people there (n = 1)	7
Spouses discussion groups	1
You're wired Yes (n = 1), Don't know (n = 1)	2
Indefinite Helpful procedures Help with your recuperation Program suiting each individual	3

uncertain as to how long the program would be for them. Responses varied with only two suggesting the same time frame, "six weeks or 12 weeks". One asked, "How long is that gonna be?" Other responses included conjectures, such as, "eight weeks or 12 weeks", "two months, three months", "three times a week for six weeks", "three times a week for 12 weeks", "five days as far as I know, one week", "three or four or five weeks, I understand that it is about four or five weeks", and "ten days for two and one half hours".

Reasons to Attend a CRP

Many different reasons for actually planning to attend the CRP were given by participants. Though a few (n = 3) indicated non-specific "things", such as, "I expect them to be doing something", most offered one or more reasons for planning to go to the program.

Several participants felt it was a requirement for them to attend a program. For two, their physician's had requested or recommended attendance so that they could be assessed for returning to their former employment. For another two, they thought they should go, giving reasons such as, "I think that medically you should go to whatever you can". Three others recognized their need, by such comments as, "someone my age... I need it".

Some participants reasoned that the advantages the program offered were sufficient cause to go. They commented on unit facilities that were available, especially equipment (n = 2); on the qualified and experienced staff (n = 3); on the supervision and monitoring that was in place for safety reasons (n = 3), such as, "safer going where I can be monitored"; on the fact that they were not on their own when in the program (n = 3), such as, "hard to do it just on your own"; and on attendance being the best thing to do (n = 2), such as, "you get the best out of that type of program".

Some reasons reflected anticipated desirable outcomes from the CRP. These comments included attaining recovery to where participants could "get back" to what they were and did before the MI (n = 6), such as, "it will say whether I am capable of going back to driving; in this program its supposed to come forward"; perceiving the help and benefits of the program (n = 9), such as, "if its good for what ails ya, let's have some"; anticipating repair of the damaged heart muscle (n = 2), such as, "offset the damage that's been done"; living longer (n = 3), such as, "not be one of those statistics"; and progressing (n = 2), such as, "advance quicker that way".

Several other responses reflected that information gathering was a reason to attend the CRP. For some, this was to determine physical reasons for their problems (n = 2), such as, to "find out why... I get so tired, why do I get tired?"; to learn what are the best things to do (n = 6), such as, there being "a right way and a wrong way... I'd like to do it the right way"; and to be taught (n = 2), such as, receiving the "proper education ... structured education rather than just reading pamphlets and things".

Participants also gave reasons that reflected desires for good mental health. Some sought a quality of life (n = 2), such as, "I wanta know what I can do to have the best quality of life I can have"; others, psychological benefits (n = 3), such as, "to cope, to be able to cope with things wisely"; and still others, to increase their feelings of confidence (n = 3), such as, "confidence that I'm all right, confidence that I'm okay".

In summary, participants shared information regarding who told them about the CRP and how decisions had been made for attending it, what they thought about the program and what they knew would happen during the program, and their reasons for attending the program. They were then asked what they wanted or hoped for from the program for themselves, that is what their expectations were for the CRP.

Participants' Expectations for a CRP

During the interview, participants had their first opportunity to indicate what their expectations were for the CRP. These expectations were what the post-MI individuals reported that they anticipated from a cardiac rehabilitation program based on their perception of what would take place and what they hoped to learn, and to achieve and/or gain, and how they hoped to benefit from the program. When participants were first asked about their expectations for the CRP, six participants commented that, in contrast to their actual knowledge of the program, they did not know what to expect from the program. One such statement was, "I don't know what to expect; I just don't know what exactly to expect there"; and another, "I don't really know what are the things what I'm... looking for". Four participants expressed the need to have more information on which to base expectations, commenting, "I think you pretty near have to start the program and see how extensive it was... to get an idea of where you went from there". However limited some participants may have felt their background knowledge was, all shared information on what their expectations for the program were.

Participants stated the kind of information, activities, and results they wanted from the program; mentioned the types of resources they wanted available; related things that they hoped would occur during and as a result of the program; and shared specific expectations and non-expectations of the program. As well, a few participants commented on personal methods or tactics they planned to use during the CRP to accomplish what they desired from the program, and also mentioned information they sought which related to their lives following the CRP.

Participants then recorded the extent of expectation they personally had for the statements presented in the

Expectation Assessment of Post-Myocardial Infarction Individuals for a Cardiac Rehabilitation Questionnaire (EAPICRPQ)-Part One. The responses ranged on a scale from one ("Do not expect") to five ("Absolutely expect"). The mean and standard deviation (SD) for responses to each statement were calculated. After completing this part of the questionnaire, participants recorded any other expectations they had for the CRP and what they considered to be their most and least important expectations .

The findings from these two data collection methods are presented, with expectations stated in the EAPICRPQ-Part One being recorded with the same or similar expectations expressed during the interview. Following that, additional information about expectations, mentioned by participants during the interview, is reported.

Reported Expectations of CRP

Participants talked about their contact with other participants and CRP staff. They indicated that they wanted to be with other people with similar conditions (n = 6) and made comments, such as, "I'll be with people that have gone through the same thing. That would be very important to me, finding out what caused their.. their heart attacks and what they've done to.. to get over it and what their goals are". The mean response for "talk to others who have had a heart attack" was 4.323 (SD 1.045).

Participants also expected to be monitored by CRP staff (n = 6) and indicated this by comments, such as, "monitor, check on how you're doing, ... monitoring what you're doing". The statement, "have medical supervision" (mean = 4.806, SD = .402) reflects this expectation.

Some participants hoped for increased knowledge and understanding about their heart's functioning (n = 4) which was reflected in such comments as "I hope to come out of it more knowledgeable about hearts" and "I'd like to know all about this thing here, knowledge, understand more". Others indicated that they wanted facts on the heart and on heart attacks (n = 6), for instance saying, "I wanta know a few things about heart attacks, on the heart, what's happened". The statement, "understand how my heart works", with a mean of 4.581 (SD = .886), indicates that most participants had a strong expectation for this and, as well, three participants reported that their most important expectation was to "understand how my heart works".

The statement, "promote the healing of my heart" had a mean of 4.839 (SD = .374). Comments in the interview reflect a similar trend for this expectation. Some participants saw this as restoration of the myocardium (n = 3) as seen in comments, such as, "... to get physically good as any damage that was done to the heart that could.. can be repaired on it's own". Eight comments reflected this as a wish to improve myocardial strength, as for instance, "its going to contribute to strengthening my heart muscles"; and "it will build your heart strength". One participant indicated he hoped for a healthy heart and six wanted indications that the heart's condition was acceptable, as indicated in the following three comments: "I wanted, too, all doose tests to pass, pass doose tests or whatever dey are"; "I wanta come clear"; and "come out of it with a.. a certificate or a statement or something or a pat on the back saying 'hey you're good now, you're fine, your heart's good'".

Though learning about heart disease was not actually mentioned during the interview, three participants reported in the EAPICRPQ-Part I that this was one of their most important expectations. Participant response to the statement, "learn about heart disease", also reflected a strong expectation with a mean of 4.806 (SD = .402).

Six participants were interested in determining the cause of their heart attack which was reflected in comments, such as, "concerning with my heart... how come I had a heart attack; the number one thing, I want to find out what caused it". Ten also wanted to find out the extent and/or the area of the heart that was damaged as was evident by such questions as, "how badly did I damage my heart?"

Five participants stated they expected to be able to prevent angina, as seen in the comment, "I'll know what angina is, what causes angina... is there any prevention for it... is it just a sign of a heart attack coming... I will know more about this". As well, five participants reported that this was one of the most important expectations for them. The expectation was high (mean = 4.935, SD = .250) for the EAPICRPQ statement, "be able to prevent angina (chest heaviness, tightness, or pain)". Though no specific statements were made about it during the interview, participants also had a strong expectation to "be able to manage angina if it occurs" (mean = 4.903, SD = .301). Four noted this among their most important expectations.

Prevention of another MI was talked about by 11 participants. One participant said he would "work toward preventing it from happening again, prevention of further attacks, I don't wanta go through this again". Another wondered "what safeguard there is about the heart attack" and what "prevention you have to do about the heart attacks" to "prevent yourself to get another heart attack" and "if rehabilitation has something that will prevent it, I'd like to see what they can do about it, if they got anything". The mean for "be able to prevent another heart attack" was 4.677 (SD = .945) and 12 participants recorded that it was one of the most important expectations for them.

Participants, during the interview, did not offer comments regarding problem reporting. However, the mean for the EAPICRPQ statement, "know what and when discomforts or problems should be reported" was 4.806 (SD = .402) and three participants recorded that this was among their most important expectations. Further, the mean for "have someone to report my problems to or answer my questions" was 4.613 (SD = .715). Also, one individual did indicate that following the CRP he expected to "know that those facilities are there for you in the future if you need them and you can end up going, know that that sort of thing in the future is in.. if for some reason why I want to go, they'll be there".

The statement, "improve how I feel" had a mean of 4.613 (SD = .844). This was not reflected in comments made during the interview. Also in the interview, participants did not use the phrase "receive treatment to cure my heart disease", the mean of which was 4.323 (SD = 1.194). However, several different comments contained the theme of returning to their previous health situation. Four talked of expecting to rebuild themselves, for instance using phrases such as, "building myself up again". Getting into shape was another such theme (n = 7) reflected in comments, such as, "you go to keep your body in shape"; and "I'll be in better shape coming out of this program than before I had the heart attack even".

Ten participants expected to be better as a result of the program, as for instance when one said "I'll find out what I can do to make it better"; and another, "I think I will come out of it better than when I went into it". Ten also used the term "get back" to reflect various aspects of their expectations for cure. One participant said he wanted to "get back to doing things the way I did"; and another expected the CRP to assist him "in getting back where I was, wanta get back up there again, hoping this rehab program will assist me in getting there". Another reflection of the expected curative potential of the program, was the hope of some participants (n = 5) that they would do the things that they used to do. One expressed this thought, by saying, he was going "to find out that I am able to do things that I did before, to go through it and they say that you are capable of doing what you did before".

Several participants also indicated that a cure wasn't expected. One said, "I don't think that's gonna happen, you can go and lift, you can do whatever you want, lift anything you want or shovel snow er.. er whatever, smoke or drink you're in good health now... I'm not expecting it". Another stated, "They're not gonna make a brand new man out of me, not gonna just make me 100% and everything else like that; it's not my expectation at all; I don't expect the impossible; I'm not expecting any miracles". A second participant also said he wasn't expecting any miracles while another expressed this idea as, "I'm not expecting the moon".

Further, expectations related to nitroglycerine were not reflected in comments made during the interview. The mean, as determined from the questionnaire response, was 4.452 (SD = 1.028) for the statement, "know about nitroglycerine and how to use it". Expectations about medications in general, however, were expressed (n = 4) by questions, such as, "are you supposed to take the pills forever, what are they going to tell me about my medication?" The mean for, "know about my medications and how to take them", was 4.548 (SD = .995) and three participants indicated that this was one of their most important expectations.

To "reduce my risk factors for heart disease" was also not a phrase employed by participants. The mean for it was 4.806 (SD = .402). Two participants, in response to the EAPICRPQ statement, did indicate that this expectation was one of the most important to them and one, that it was among the least important expectations.

Participants related their expectations about blood cholesterol level. Three wanted cholesterol test results, commenting, "I'd like to know exactly what my cholesterol is, I want to know the number". One participant expected someone to "explain cholesterol and what happens". He said, "maybe I'll find out in this program. I'd like to know. Tell me what my cholesterol is, how I can better control it. I wanta find out what my cholesterol numbers are, what to do to control them. I wanta know numbers".

The mean for the EAPICRPQ statement, "lower my blood cholesterol level", was 4.290 (SD = 1.160) and for, "decrease cholesterol in my diet", was 4.194 (SD = 1.138).

One individual's concern was about "decaf, no good for cholesterol; regular, no good for the heart because of caffeine. Well, which one is what?" Other than this, participants did not specifically state expectations regarding cholesterol in their diets.

One participant indicated that he hoped, in the CRP, someone would "explain the difference in saturated fats, and what happens". Participants did not specifically mention to "reduce fat in my diet" though the mean for this statement was 4.387 (SD = 1.022), indicating that most participants expected that this would occur as a result of the program.

Two participants expected to have explanations specific to salt and food. One said he wanted someone to "explain... salt... and what happens" and another wanted someone to "explain what's in our foods".

Information on diet was expected (n = 18). Some wanted minimum information, such as, "diet, don't think so, don't anticipate too many questions on that"; while others had broad diet interests, such as, "I want to know more about the diet part". Still others included eating habits (n = 6) in their expectations about dietary information, as for instance, to "learn more about eating habits". Among the additional expectations recorded by participants on the EAPICRPQ were four related to diet. These were the expectation "to hear something about diet", learning "how to have a good diet", being "educated on healthier eating habits", and hoping "that resources of the centre would be available for my use in the future should I need it, i.e. dietary concerns".

For the statement, "reduce my weight", the mean was 3.323 (SD = 1.469). That some participants (n = 3) expected to reduce their weight was also reflected in comments, such as, "losing a bit of weight, tell us too what our target.. what our weight should be. If that's what's suggested, I'll.. I'll go for it". Participants as well indicated a desire to "maintain an ideal weight", the mean for this statement being 4.258 (SD = .930). One participant, during his interview, also expressed an indirect expectation about his weight saying he would keep it down.

Exercise, or various aspects of it, was mentioned by the majority of participants (n = 24) during the interview. This included actual exercise, how much, what kind, and an exercise program. One person's comments included the phrases, "doing exercise there, different types of exercising, how to apply them correctly; exercise, proper exercise; see the correct way to exercise, learn that; exercise is the big factor"; and "exercise program". Another person's terms were, "an exercise program; the number one thing is the exercise program... my priorities, type of exercise". Another participant was more definite in what he hoped for, saying, "what kind of exercise I can do, exercises I can do; what exercising should I do... what exercises are more beneficial to me; is there a limitation to these exercises? If I do these exercises, then I can probably do equivalent work". Three participants indicated that the EAPICRPQ statement, "exercise within my limits" (mean 4.774, SD = .425), was one of the most important expectations for them.

Participants did not vocalize expectations about learning to count their pulse, therefore their expectation to "be able to count my pulse (heart beats)" was reflected only in the EAPICRPQ where the mean was 4.194 (SD = 1.424). One participant, however, did record that this was among his least important expectations.

There was a high expectation for "improve my activity tolerance" with a mean of 4.645 (SD = .798). During the interview, as well, this expectation was mentioned by four participants as is reflected in the following comments: "I can improve myself"; and "I'll be able to do more and more things as it improves". Also, to "know my activity limits", mean of 4.613 (SD = .803), was a strong expectation and four participants recorded this as being one of their most important expectations. One specific activity limit referred to was lifting (n = 2), such as, "what you can lift at your house, so many pounds to a certain level, to achieve that". Participants also referred to less precise activity limits and used words, such as, "limitations", "boundaries", and "restrictions"; and phrases about how far to "extend" themselves (n = 11), such as, "where my limits are, my limits, a program that will basically tell me what my limits will be", and "when to quit or when to stop what you're doing". Also, six participants mentioned "stress tests" as a means to help in determining their limits.

Some participants expected to use particular exercise equipment while in the program. Three mentioned the treadmill with one saying he would be "on the machine to walk on, that treadmill". Two others wondered if there would be weights or a swimming pool available. The mean for the statement, "use exercise equipment", was 4.129 (SD = 1.147).

Participants expressed expectations for having help with their mental status (n = 8), such as, the program will "help me improve my psychological well being". Another thought it would provide "guidance in knowing how to deal with your situation" and in "making some improvements with my well being, that I'm in the right direction". He believed his "well being" was the "number one thing... being able to cope with my situation in the best possible way" and that he would "hopefully get that" and "maybe a lot of other things that would be very good for.. for my well being". Other participants (n = 4) indicated that they expected supportive practices to be available to "give you a brighter outlook on the rest of your life; ... a change in perspective... an improvement; if things were not as positive before that they will be a lot more positive now"; and to tell him what he could do for himself. One participant expected that financial guidance would be available, commenting that, "the financial thing, try to see what's happening, definitely that'll happen". The EAPICRPQ statement, "have supportive counselling (social worker, psychologist)", had a mean of 3.290 (SD = 1.395) and one participant recorded that this was, for him, the most important expectation.

The mean for "stop smoking", was 2.419 (SD = 1.840), with three participants reporting this as being among the most important expectations for them. One participant's expectation was for "things to help you stop smoking; I want to quit smoking". Eleven participants, however, indicated that this was one of their least important expectations. The statement, "limit the amount of alcohol I drink", had a weak expectation also with a mean of 2.581 (SD = 1.689). Eight participants indicated that this was one of their least important expectations for the CRP.

When talking, participants did not voice to "safely resume sexual relations", as an expectation. The mean for this statement was 3.516 (SD = 1.525), indicating a moderate expectation for this particular activity. The expectation to "change some habits in my life" (mean = 3.903, SD = 1.165) had a moderately high response. Two participants planned to "find out what kind of changes are best for me", and five talked about how the heart attack might affect their lifestyle by comments, such as, finding out "what you're gonna have to do to maintain a good healthy life". Three participants expected that their focus on themselves had to increase, that is a change in the way they had been in the habit of living, and this was reflected in comments, such as, "I gotta come first in priority; treat yourself the way you should treat yourself". Three participants indicated that they also expected the CRP to help them change the direction they had taken prior to their MI, with such comments as, "kind of getting you on the right track".

Some participants expected to "overcome difficulties in changing my life-style" (mean = 3.548, SD = 1.362). This was evident in the interview when participants (n = 6) talked about planning and organizing their daily activities. One said, "I'd like to get back where I can get into a good routine"; and another, "I want to find out how I can organize my life". Two participants indicated that they expected teaching would be employed to help achieve this. One said he wanted the program to "teach me to live within my means; teach me to live within ah the borders of my... incapabilities... if there are any... something I'll have to find out... hope to find out".

Participant interest in having family members involved in the program was moderately strong. The mean for "have my spouse or family involved" was 3.710 (SD = 1.296). Four participants expected to have their spouse attend the CRP with them, for instance, expecting "both of us to go in too when I go in. Quite important that we both go to take advantage of whatever there is there". Three participants indicated that this would be among their most important expectations.

Seven participants revealed that they expected to have a program that would help them with stress management as indicated by statements, such as, having a "program that's how to handle stress; stress handling, handling stress". Another emphasized the importance of this saying, "I hope that some of that will be given". The statement, "deal with my stress", had a mean of 3.871 (SD = 1.258). Additional expectations recorded on the EAPICRPQ were having less stress, stress reduction, and coping with stress related problems. One participant revealed "less stress" to be a most important expectation.

Eight participants expressed expectations about going back to work making comments, such as, "going to work and doing my job that I've been doing for 30 years; go to work; when they say I can go back to work". One participant was wanting "to find out if I can go back to work". Two were retired and did not plan to return to the work force and made comments, such as, "I'm retired so we forget about work, forget about answering the clock". The mean for the statement, "go back to work", was 3.387 (SD = 1.667). Four participants who planned to return to work expected to find out if they would have to make work changes indicating this by remarks, such as, "find out... whether I'm gonna have to change.. change jobs". The mean for "make changes in my work" was 2.968 (SD = 1.402).

Five participants expected to find out how to balance certain aspects of their life as indicated by comments, such as, "a combination of rest and exercise... when it needs absolute rest and whe..when you can work it a bit more". The mean for the statement, "balance my rest and activity", was 3.935 (SD = 1.031). Two other statements with moderate expectations, which were not reflected in comments by participants during interviews, and dealt with activity or use of time were, "change how I use my leisure time" (mean 3.452, SD = 1.261); and "have restrictions on certain activities" (mean 3.871, SD = 1.204).

The mean for the EAPICRPQ statement, "have a family member able to do cardiopulmonary resuscitation (CPR)" was 3.097 (SD = 1.399). This topic was not discussed by any of the participants. There was, however, high expectation for "enjoy my life" (mean 4.581, SD = 1.057) and six participants indicated that this was among their most important expectations.

Four EAPICRPQ statements for which participants had moderate to moderately high expectations were "sleep without difficulty", with a mean of 3.032 (SD = 1.581); "practice relaxation techniques", with a mean of 3.935 (SD = 1.181); "express the feelings I'm experiencing", with a mean of

3.742 (SD = 1.125); and "understand my feelings", with a mean of 3.871 (SD = 1.147). These expectations, however, were not expressed by participants during the interview.

Participants were asked to record "things that I expect or hope to happen for me that are not written in this questionnaire". Three statements reflected hopes related to restoration to what it was like for them prior to their MI; three related to the future and hopes they had for it; two related to being healthier and another two to getting well; while a further nine varied in content, specifics and scope. These expectations are recorded in Table 34.

Participants were also asked to record, of all the statements given in the EAPICRPQ, those which they would rank as most important to them, and which were least important to them. Statements recorded as being most important to three or more participants have been mentioned previously and those mentioned by only one or two participants are presented in Table 35. Expectations considered least important included "stop smoking" (n = 11) and "limit the alcohol I drink (n = 8). The remaining reported least important expectations are noted in Table 36.

Additional Expectations

Participants talked about several other expectations that they had for the CRP. This included information they were seeking; specific questions for which they sought answers; occurrences they hoped for; types of resources they

Table 34

Recorded Expectations

Expectation	Number
Restoration: restore my health to 90% of [what] it was before mine [my] heart attack get back on my feet be the same person as I was before my heart attack	3
Future: support group following completion of program be healthy and be happy for the rest of my life would hope (expect) that the resources of the centre would be available for my use in the future should I need it, i.e. exercise levels/difficulties, dietary concerns, etc	3
Healthier: healthier through exercise and non smoking than I was before the attack healthier person inside and out	2
Get well: to get well again to get well	2
Exercise	1
Knowing proper way to increase activity	1
Severity of my heart attack	1
Limitations	1
Being able to express myself with doc[tors] & medical people	1
Maintain lots of rest	1
Live a normal life, i.e. play golf, swim, work, etc	1
Have the benefit of monitoring activities and supervision	1
Take full advantage of the rehab centre during the recovery period	1

Table 35

Most Important Expectations

Expectations	Number
promote the healing of my heart	2
receive treatment to cure my heart disease	2
decrease cholesterol in my diet	2
improve my activity tolerance	2
go back to work	2
have a family member able to do cardiopulmonary resuscitation (CPR)	2
have medical supervision	1
have someone to report my problems to or answer my questions	1
know about nitroglycerine and how to use it	1
lower my blood cholesterol level	1
reduce fat in my diet	1
reduce my weight	1
use exercise equipment	1
safely resume sexual relations	1
overcome difficulties in changing my life-style	1
practice relaxation techniques	1
express the feelings I'm experiencing	1
make changes in my work	1
enjoy life and risk further heart disease	1
* blood pressure ??	1
healthier through exercise and non smoking than I was before the attack - stress reduction (learning how)	1
to get well again, to get back on my feet	1
exercise and limitations	1
be healthy and be happy for the rest of my life	1
knowing proper way to increase activity	1
to get well	1

Table 36

Least Important Expectations

Expectations	Number
stop smoking	11
limit the amount of alcohol I drink	8
reduce my weight	3
make changes in my work	3
have supportive counselling (social worker, psychologist)	2
sleep without difficulty	2
go back to work	2
improve how I feel	1
reduce my risk factors for heart disease	1
lower my blood cholesterol level	1
decrease cholesterol in my diet	1
reduce fat in my diet	1
maintain an ideal weight	1
be able to count my pulse (heart beats)	1
change some habits in my life	1
overcome difficulties in changing my life-style	1
deal with my stress	1
practice relaxation techniques	1
understand my feelings	1
balance my rest and activity	1
have restrictions on certain activities	1
have a family member able to do cardiopulmonary resuscitation (CPR)	1

wanted available to them; expectations about their heart, health, and improvement, and questions about their future following the CRP (Table 37). Circumstances that they did not expect to come about as a result of the CRP were also mentioned by six participants (Table 37).

Four participants talked about measures or tactics that they expected to employ during the CRP in order for them to achieve the goals and meet the demands of the CRP. For one it was a matter of discipline, "I can discipline myself; if they say you can't do that then... I'm not going to do it; discipline... self; do whatever the doctor said that you are supposed to do". For another, it was determination, "I'll do whatever I have to do to make it better; do things to... accommodate the healing of the heart muscle". For another participant it was, "I'll do my best to .. to comply with their program", while for one it was a matter of hope that he could comply, that is, "I hope that whatever they want me to do I can do it the way they like it and it will help me".

Relationship Between Expectations and Participant Variables

Using the Pearson correlation coefficient, potential relationships between the expectations noted in the EAPICRPQ and other variables were assessed to better understand the participants' expectations for CRPs, and to determine if any significant relationships existed between them. Significant relationships between expectations and other variables assessed are found in Table 38. (Those with a probability

Table 37

Additional Expectations

Expectations	Frequency
Information sought from a CRP:	
To learn, i.e. "learn more about it; learning experience"	7
Guide/guidance/guidelines, i.e. "Guide you on in certain ways"	6
What their physical state is, i.e. "What level you're at; do they have a bench mark where you should be physically; want to know where I am now, what level"	5
Best/better things to do, i.e. "emphasize the other better things to do"	4
What the heart's physical status now is, i.e. "Whether my heart's getting better or whether it ain't"	3
Blood pressure, i.e. "know more about the first and second number... about how important they are to one another"	3
Non-specified information, i.e. "I'll get ah information"	2
What is to be expected ultimately, i.e. "Exactly how much I will fully recover"	2
What they have to do, i.e. "know what I have to do"	2
Road signs, i.e. "continue on... paying attention to the road signs"	2
Estrogens... interested in the estrogen factor... impact for women, more women having ah heart attacks... diminishes the possibilities"	1
Provide some statistics on women	1
Specific questions asked:	
Asking questions, no topic specified, i.e. "I've got a few questions"	7

Continued

Table 37

Additional Expectations - Cont'd

Expectations	Frequency
Specific questions asked: (cont'd)	
Why [I can or can't do things]	1
What can I do, i.e. "don't know whether I can do 10 pushups... maybe the program will show me... you don't have to worry you can do this and you can do that; depending on the tests, whatever they say I can do"	9
When, i.e. "can I do this thing in six months"	7
What can't I do, i.e. "what I ... can't do with my size of heart attack"	6
Supposed to do, i.e. "find out what I am supposed to do;... are you supposed to take it easy for ever"	6
Should do, i.e. "should I be doing this or not; what else... should I do; should I be doing the same things I always did"	5
Shouldn't do, i.e. "... what I shouldn't do; tell me... what I shouldn't do"	3
Specific "can I's" which were about painting a room, cutting grass, and going on courses safely	3
Safely/with safety do, i.e. "how much can I do safely"	2
Types of resources participants want available:	
Literature, i.e. "I'd like to see what there is on literature on the heart"	2
Laymen's terms: "hope that education is at a normal everyday level... not medical terms for everything, layman's terms; things to be laid down in front of me like this is the way it is in black and white, in not easy form but understanding form"	1
Discussions	1
Suggestions	1

Continued

Table 37

Additional Expectations - Cont'd

Expectations	Frequency
Types of resources participants want available: (cont'd)	
Sensible ideas	1
Listening to programs, listening to what they recommend	1
Occurrences hoped for by participants:	
Walking, i.e. "Lots of walking; walking, how much I can walk"	8
Specific physical activities [mentioned by 7 participants] Ride a bike... how far Hoping that I'll get back on that [running] through the rehab program; get my running level up; I want to get that back again; back running Like to... start lifting a few weights and get my muscles back into shape again Can I still go swimming Want to see if I could jog Can I still play 18 holes of golf Swing a club Golf Sports	9
Expectations for health:	
Back healthy, i.e. "getting my health back, that is number one"	5
Healthy, i.e. "find out just exactly what I should be doing to make myself healthy"	5
Healthier, i.e. "come out of there a lot healthier person"	2
Health, i.e. "more knowledgable about health in general"	2
Health good, i.e. "providing my health is good after that"	1

Continued

Table 37

Additional Expectations - Cont'd

Expectations	Frequency
Expectations for heart:	
Be free from worry [about heart], i.e. "resume my normal life without worrying that I can keel over at any second"	4
Expectations for Improvement:	
Become stronger, i.e. "strengthen myself; physically... strengthen back up; get stronger"	8
Physical gain, i.e. "Wanta become fit again... the big thing; to get back in shape" and "The flexibility... hope that will come back by.. by doing what they do there"	4
Progress, i.e. "progress gradually"	3
Future information wanted following the CRP:	
State of health, i.e. "How far will I rehabilitate; details of what's coming"; and "What's in store for me after that"	4
Support groups... for all the patients... after you go through the program... a support group if anything comes up in the future to rely on	1
Six months down the road do I get retested	1
Non-expectations related by participants:	
Shaky... not that hopeful wards... every old man shakes	1
I'm not really looking for anything strange, anything.. unusual	1
I don't expect to go in there and run a mile	1
I don't expect to be a young man again	1
I don't expect to jog afterwards	1
Absolutely not... nothing specific [expected]	1

less than .05 are indicated by a single asterisk [*p<.05] and less than .01 by a double asterisk [**p<.01]).

The expectation, "talk to others who have had a heart attack", was positively related to the variables, "total cholesterol" (r = .52**), "LDL" (r = .39*), "cholesterol risk" (r = .59**), "BMI" (r = .43*), "BMI risk" (r = .41*), "present level of anxiety" (r = .38*), and "I would rate my weight as" (r = .39*), indicating that those who had higher expectations for wanting to talk to others who had a MI were more likely to have higher total cholesterol and LDL levels, higher cholesterol and BMI risks, higher BMIs, greater levels of anxiety, and were more likely to rate themselves as being overweight. An inverse relationship was found between this expectation and "age" (r = -.51**), indicating that those who were younger were more likely to want to talk to others who had a MI.

Significant relationships were found between the expectation, "safely resume sexual relations", and the variables, "number of weeks since infarction" (r = -.38*), "present physical problems" (r = -.48**), and "age" (r = -.59**), indicating that participants who were closer to the time of their MI, who were free of physical problems, and who were younger, were more likely to have a higher level of expectation for safely resuming sexual relations.

Significant relationships were found between the statement, "go back to work", and the variables, "age" (r = -.43*) and "level of my family support" (r = .39*), indicating that younger participants and those who had the highest level of family support were more likely to have a higher level of expectation for going back to work.

"Improve my activity tolerance" was found to have significant relationships with the variables, "total cholesterol" (r = .43*), "LDL" (r = .47**), "cholesterol risk" (r = .45*), "age" (r = -.44*), and "since my heart attack I exercise" (r = .39*.), indicating that participants with high cholesterol risk, those who were younger, and those who were exercising the most since their MI were likely to have higher levels of expectation for increasing their activity tolerance. The expectation, "promote the healing of my heart", was also significantly related to "age" (r = -.40*), indicating that younger participants were more likely to have a higher level of expectation, as well, for promoting the healing of their hearts, than older participants.

Significant relationships were found between the expectation, "overcome difficulties in changing my life-style", and the variables, "present physical problems" (r = -.61**), "age" (r = -.59**), and "before my heart attack I smoked" (r = .44*), indicating that those who presently had no physical problems, who were younger participants, and who smoked frequently prior to their MI were more likely to have higher levels of expectation for overcoming difficulties in changing their life-style.

The expectation, "be able to count my pulse (heart beats)" was found to be significantly related to the variables, "present physical problems" (r = -.63**), "age" (r = -.45*), and "education completed" (r = .36*), indicating that those without present physical problems, those who were younger, and who had the higher education levels were more likely to have a higher level of expectation for being able to count their pulse.

Significant relationships were found between the expectation, "change some habits in my life", and the variables ,"total cholesterol" (r = .39*), "cholesterol risk" (r = .42*), "age" (r = -.52**), "total annual income per household" (r = .36*), and "before my heart attack I smoked" (r = .37*). This indicated that those whose total cholesterol level and cholesterol risk were high, who were younger, who had a higher total annual income per household, and who had smoked frequently prior to their MI, were more likely to have higher expectations for changing some habits in their lives. Significant relationships were also found between the expectation, "know my activity limits", and the variables, "age" (r = -.36*), and "since my heart attack I exercise" (r = .45*), indicating that those who were younger and those who were exercising more frequently since their

MI, were more likely to have a higher level of expectation for getting to know their activity limits.

Significant relationships were found between the statement, "deal with my stress", and the variables, "age" (r = -.46**), "present level of anxiety" (r = .50**), and "amount of stress in my life" (r = .45*), indicating that those who were younger, and were experiencing high levels of anxiety and stress, would more likely have higher levels of expectation for being able to deal with their stress.

Significant relationships were found between the expectation, "be able to manage angina if it occurs", and the variables, "amount I know about my heart attack" (r = .47**) and "amount of stress in my life" (r = .36*), indicating that those who knew the most about their MI and who rated the stress in their life as high, were more likely to have a higher level of expectation for managing angina. Also, significant relationships were found between the expectation, "learn about heart disease", and the variables, "amount of stress in my life" (r = .44*)", total cholesterol" (r = .36*), "cholesterol risk" (r = .36*), and "history of smoking" (r = .45*) indicating that those who felt they had the greatest amount of stress in their lives, those with the highest cholesterol level and cholesterol risk, and those with a history of smoking, were more likely to have a higher level of expectation for learning about heart disease. The only significant relationship found between the expectation, "make changes in my work", and other variables was the "amount of stress in my life" (r = .38*), indicating that those who rated the amount of stress in their lives as being moderate to high were more likely to have a higher level of expectation for making changes in their work.

Significant relationships were found between the expectations, "know about my medications and how to take them" and "know about nitroglycerine and how to use it", and the variable, "number of weeks since infarction" (r = -.46** and -.44*, respectively), indicating that those who were closer to the time of their MI were more likely to have a higher level of expectation for knowing about their medications and how to take them and for knowing about nitroglycerine and it's use.

Significant relationships were found between the expectation, "have my spouse or family involved", and the variable, "number of weeks since infarction" (r = -.45*), indicating that those with the shorter period of time since their MI were more likely to have higher levels of expectation for having their spouse or family involved in the CRP. Also related to family, significant relationships were found between the statement, "have a family member able to do cardiopulmonary resuscitation (CPR)", and the variables, "present physical problems" (r = -.59**), "age" (r = -.36*), "present amount of chest discomfort/pain" (r = -.58**), and "present frequency of chest discomfort/pain" (r = -.54**). This indicated that those with no present physical problems, those who were younger, and those who were experiencing the least chest discomfort/pain were more likely to want to have a family member able to do CPR.

A significant relationship was found between the expectations, "lower my blood cholesterol level" and "decrease cholesterol in my diet", and the variable, "cholesterol risk" (r = .36* and .37*, respectively), indicating that those with higher cholesterol risk were more likely to have a higher level of expectation for lowering their blood cholesterol level and decreasing cholesterol in their diet. Significant relationships were also found between the expectation, "reduce my weight", and the variables, "cholesterol risk" (r = .36*), "BMI" (r = .53**), "BMI risk" (r = .54**), and "I would rate my weight as" (r = .70**), indicating that those who were at high risk because of their cholesterol and BMI, and who rated their weight as being too high, would be more likely to have a high level of expectation for reducing their weight. As well, significant relationships were found between "exercise within my limits" and the variables, "high density lipoproteins (HDL)" (r = .56**) and "amount I know about my heart attack" (r = .39*), indicating that those with the higher blood levels of HDL and those who know the most about their MI are more likely to have a higher level of expectation for exercising within their limits.

Significant relationships were found between the expectation, "have supportive counselling (social worker, psychologist)", and the variables, "present physical problems ($r = -.45^*$) and "amount I know about my heart attack" ($r = .41^*$), indicating that those who were free of physical problems and those who knew the most about their MI would be more likely to have a higher level of expectation for supportive counselling from professionals such as a social worker or psychologist.

"Understand how my heart works" was found to be significantly related to the "amount I know about my heart attack" ($r = .39^*$), indicating that those who knew the most about their MI were more likely to have a higher level of expectation for understanding how their heart worked.

A significant relationship was found between the expectation, "practice relaxation techniques", and the variable, "present level of anxiety" ($r = .49^{**}$), indicating that those who were experiencing higher levels of anxiety were more likely to have a higher level of expectation for practising relaxation techniques.

Significant relationships that pertained to exercise before and after the MI were found. There was a significant relationship between the statement, "have restrictions on certain activities", and the variable, "before my heart attack I exercised" (r = .50**), indicating that those who had exercised more frequently prior to their MI, were more likely to expect limitations on their activities. Further, significant relationships were found between the expectation, "use exercise equipment", and the variables, "since my heart attack I exercise" (r = .37*), "present physical problems" (r = -.68**), and "present frequency of chest discomfort/pain" (r = -.40*), indicating that participants who were free from physical problems and chest discomfort/ pain, and were exercising the most since their MI, were more likely to have higher expectations for using exercise equipment in the program.

Significant relationships were found between the expectation, "stop smoking", and the variables, "before my heart attack I smoked" (r = .85**) and "since my heart attack I smoke" (r = .44*), indicating that there were likely to be higher levels of expectation for participants to stop smoking if they had smoked more frequently prior to and following the MI.

Lastly, a significant relationship was found between the expectation, "reduce my risk factors for heart disease", and the variable, "present level of anxiety" (r = .36*), indicating that those rating their level of anxiety as being high were more likely to have greater expectations for reducing their risk factors for heart disease.

In summary, significant relationships between certain variables and a variety of expectations were noted. For instance, the greater the "amount I know about my heart attack", the greater was the level of expectation for "be able to manage angina if it occurs", "exercise within my limits", "understand how my heart works" and "have supportive counselling (social worker, psychologist)". Also, the greater the determined "cholesterol risk", the more likely the level of expectation would be higher for "lower my blood cholesterol level", "decrease cholesterol in my diet", "learn about heart disease", "improve my activity tolerance", "change some habits in my life", "reduce my weight", and "talk to others who have had a heart attack". As well, the fewer the "number of weeks since infarction", the higher the levels of expectation would be for "safely resume sexual relations", "have my spouse or family involved", "know about my medications and how to take them", and "know about nitroglycerine and how to use it".

Further, the variable, "age", decreased as the level of expectation for "safely resume sexual relations", "deal with my stress", "have a family member able to do cardiopulmonary resuscitation", "go back to work", "improve my activity tolerance", "know my activity limits", "overcome difficulties in changing my life-style", "promote the healing of my heart", "be able to count my pulse", "change some habits in my life", and "talk to others who have had a

Table 38

Significant Relationships Between Expectations and Variables

Expectations and Variables	Correlation Coefficient
Talk to others who have had a heart attack:	
Total cholesterol	.52**
LDL	.39*
BMI	.43*
Cholesterol risk	.59**
BMI risk	.41*
Age	-.51**
Present level of anxiety	.38*
I would rate my weight as	.39*
Safely resume sexual relations:	
Number of weeks since infarction	-.38*
Present physical problems	-.48**
Age	-.59**
Go back to work:	
Age	-.43*
Level of my family support	.39*
Improve my activity tolerance:	
Total cholesterol	.43*
LDL	.47**
Cholesterol risk	.45*
Age	-.44*
Since my heart attack I exercise	.39*
Promote the healing of my heart:	
Age	-.40*

Continued

Table 38

Significant Relationships Between Expectations and Variables - Cont'd

Expectations and Variables	Correlation Coefficient
Have a family member able to do cardiopulmonary resuscitation (CPR):	
Present physical problems	-.59**
Age	-.36*
Present amount of chest discomfort/pain	-.58**
Present frequency of chest discomfort/pain	-.54**
Overcome difficulties in changing my life-style:	
Present physical problems	-.61**
Age	-.59**
Before my heart attack I smoked	.44*
Be able to count my pulse (heart beats):	
Present physical problems	-.63**
Age	-.45*
Education completed	.36*
Change some habits in my life:	
Total cholesterol	.39*
Cholesterol risk	.42*
Age	-.52**
Total annual income per household	.36*
Before my heart attack I smoked	.37*
Know my activity limits:	
Age	-.36*
Since my heart attack I exercise	.45*

Continued

Table 38

Significant Relationships Between Expectations and Variables - Cont'd

Expectations and Variables	Correlation Coefficient
Deal with my stress:	
Age	-.46**
Present level of anxiety	.50**
Amount of stress in my life	.45*
Be able to manage angina if it occurs:	
Amount I know about my heart attack	.47**
Amount of stress in my life	.36*
Learn about heart disease:	
Total cholesterol	.36*
Cholesterol risk	.36*
History of smoking	.45*
Amount of stress in my life	.44*
Make changes in my work:	
Amount of stress in my life	.38*
Know about my medications and how to take them:	
Number of weeks since infarction	-.46**
Know about nitroglycerine and how to use it:	
Number of weeks since infarction	-.44*
Have my spouse or family involved:	
Number of weeks since infarction	-.45*
Lower my blood cholesterol level:	
Cholesterol risk	.36*
Decrease cholesterol in my diet:	
Cholesterol risk	.37*

Continued

Table 38

Significant Relationships Between Expectations and Variables - Cont'd

Expectations and Variables	Correlation Coefficient
Reduce my weight:	
Cholesterol risk	.36*
BMI	.53**
BMI risk	.54**
I would rate my weight as	.70**
Exercise within my limits:	
High Density Lipoproteins	.56**
Amount I know about my heart attack	.39*
Have supportive counselling (social worker, psychologist):	
Present physical problems	-.45*
Amount I know about my heart attack	.41*
Understand how my heart works:	
Amount I know about my heart attack	.39*
Practice relaxation techniques:	
Present level of anxiety	.49**
Have restrictions on certain activities:	
Before my heart attack I exercised	.50**
Use exercise equipment:	
Present physical problems	-.68**
Present frequency of chest discomfort/pain	-.40*
Since my heart attack I exercise	.37*

Continued

Table 38

Significant Relationships Between Expectations and Variables - Cont'd

Expectations and Variables	Correlation Coefficient
Stop smoking:	
Before my heart attack I smoked	.85**
Since my heart attack I smoke	.44*
Reduce my risk factors for heart disease:	
Present level of anxiety	.36*

*p<.05; **p<.01.

heart attack" increased. Additionally, the "present level of anxiety" was found to increase as the level of expectation for "lower my blood cholesterol level", "practice relaxation techniques", "deal with my stress", and "reduce my weight" increased.

Relationships Between Demographic Variables

Potential relationships between demographic variables, other than the expectations identified in the EAPICRPQ, were also assessed. These are recorded in Table 39. (Those with a probability less than .05 are indicated by a single asterisk [*p<.05] and less than .01 by a double asterisk [**p<.01]).

Several significant relationships were found including those between "age" and "total cholesterol" (r = -.40**), "cholesterol risk" (r = -.57**), "before my heart attack I smoked" (r = -.47**), "since my heart attack I smoke" (r = -.43*), and "total annual income per household" (r = -.45*), indicating that the older participant were, the greater was the likelihood of them having lower cholesterol levels and risk, of them smoking less frequently prior to or after their MI, and of them having lower annual household incomes.

Total annual income was also found to have significant relationships with "total cholesterol" (r = .51**), "low density lipoproteins" (r = .45*"), and "cholesterol risk" (r = .36*) indicating that those with higher annual incomes per household were more likely to have higher total cholesterol, low density lipoproteins, and cholesterol risk.

There were also positive relationships between "total cholesterol" and "low density lipoproteins" (r = .91**), "cholesterol risk" (r = .86**), and "I would rate my weight as" (r = .36*); and also between "cholesterol risk" and "low density lipoproteins" (r = .81**) and "I would rate my weight as" (r = .38*). These relationships are consistent with the fact that cholesterol risk is higher for those who have higher total cholesterol and low density lipoproteins.

Other relationships found also included that the higher the blood pressure risk, the higher the participants' present level of anxiety; the more often an individual exercised or smoked before their MI, the more often they engaged in these practices after their MI; the greater the amount of chest pain or discomfort, the more often it was

Table 39

Significant Relationships Between Demographic Variables

Variables	Correlation Coefficient
Age:	
Total cholesterol	-.40**
Cholesterol risk	-.57**
Total annual income per household	-.45*
Before my heart attack I smoked	-.47**
Since my heart attack I smoke	-.43*
Blood pressure risk:	
Present level of anxiety	.38*
Since my heart attack I exercise:	
Before my heart attack I exercised	.48**
Since my heart attack I smoke:	
Before my heart attack I smoked	.59**
Body Mass Index:	
BMI risk	.88**
I would rate my weight as	.68**
BMI Risk:	
I would rate my weight as	.71**
Present frequency of chest discomfort/pain:	
Present amount of chest discomfort/pain	.71**
Level of my family support:	
Amount of stress in my life	-.39*
Total annual income per household:	
Total cholesterol	.51**
Low density lipoproteins	.45*
Cholesterol risk	.36*

Continued

Table 39

Significant Relationships Between Demographic Variables - Cont'd

Variables	Correlation Coefficient
Cholesterol risk:	
Total cholesterol	.86**
Low Density Lipoproteins	.81**
I would rate my weight as	.38*
Total Cholesterol:	
I would rate my weight as	.36*
Low Density Lipoproteins	.91**
Amount of stress in my life:	
Present level of anxiety	.49**

*p<.05; **p<.01.

experienced; the greater the level of family support, the less the level of anxiety experienced; and the higher the assessment for the amount of stress in their life, the higher the rating for the level of anxiety. Lastly, relationships between Body Mass Index (BMI) and the variables, "BMI risk" and "I would rate my weight as", indicated that as the BMI increased, so did the BMI risk and individuals rating of their weight.

CHAPTER V

Discussion of Findings

The purpose of this study was to determine and describe the expectations of post-myocardial infarction (MI) individuals for what they hoped to learn, achieve and/or gain, and how they hoped to benefit when they entered a cardiac rehabilitation program (CRP). Specifically, the research questions guiding the study were:

1. What do post-MI individuals initially know about cardiac rehabilitation programs;
2. What information do post-MI individuals expect to learn in a cardiac rehabilitation program;
3. What do post-MI individuals hope to achieve by attending a cardiac rehabilitation program; and
4. How do post-MI individuals hope to benefit from attending a cardiac rehabilitation program?

Tape recorded interviews and a questionnaire were employed to collect data. During the interview, in order to elicit information about the expectations of participants for a CRP, it was important to obtain details of the individual's MI experience. This included determining what meaning the MI had for the person; what individual concerns had resulted as an effect of the MI; and what goals were now being considered by participants with their changed health status. Information was then sought about how participants became involved in a post-hospitalization CRP; what their initial thoughts were about it, and what they knew of it at the time of the interview; and then, lastly, what their expectations for the program were, that is what they hoped or wanted from it for themselves. This approach to obtaining information reflects Ford's observation (1989) that the MI patient needs to make sense of the event, does so by returning to the past and then, plans for the future.

The Expectation Assessment of Post-Myocardial Infarction Individuals for a Cardiac Rehabilitation Program Questionnaire (EAPICRPQ-Part One), was used to elicit information on the level of expectation participants had for statements which reflected CRP content. Demographic data (EAPICRPQ-Part Two) and health status information about each subject were also collected.

Results of this study indicate that post-MI individuals do have expectations upon entering a CRP. To understand these expectations and to help clarify why it is important to determine what these are, a brief overview of the study participants and their understanding of the CRP will be presented followed by discussion of participant expectations for what they hoped to learn and to achieve and/or gain, and how they hoped to benefit from the CRP.

Overview of Participants

To begin, the 31 individuals who participated in this study had experienced a first MI, with 9.8 being the mean number of days spent in hospital. On average, at about four and a half weeks following their MI, they were interviewed. Only three participants were women. Ages ranged from 42 to 79 years with most (close to 40%) being in the 51 to 60 year old range. Only one was a non-Caucasian, over 50% had completed high school, and close to 70% were married. Slightly over one quarter of the participants had children still at home. The most frequently reported annual income per household, reported by about one third of the participants, was between $20,000 to $29,999. Almost half of the participants were retired and about half were working fulltime prior to their MI. One was unemployed and two were employed part-time. Occupations were varied with 32.3% being professionals, 45.2% being skilled workers, and 22.5% being labourers. The reported level of family support was high. Regarding physical feelings and perceptions of physical progress, the overall picture was that most participants, at the time of the interview, were feeling quite well and that they were improving physically.

Post-MI Individuals' Initial Knowledge of CRPs

In this study, when participants were asked about their knowledge of the CRP, the majority indicated they didn't know anything. A few said they only knew a limited amount about the program, five thought they had to attend a program before answering this question, and others provided opinion comments rather than evidence of program content. All participants, however, shared what they thought might occur during a CRP. These expectations included participating in activities, with over half of the participants mentioning exercise; and being presented with information, with diet being the item that was most frequently mentioned. A few participants commented on what they thought were health professionals' responsibilities. Participants generally did not know how long the program would last, though one believed that they could arrange a schedule to fit their requirements.

Source of CRP Information

About one third of the participants mentioned their source of information for a CRP, indicating that it came from written material or a phone call from the rehabilitation unit staff, or books, folders, and pamphlets. Almost three quarters of participants said physicians provided some of the information they received. About one quarter said, that while in hospital, nurses gave them information, while less often, other hospital staff were mentioned. Others providing information included family members, friends, neighbours, fellow workers, and other patients in the hospital. This is consistent with other studies that reported sources of information to be physicians, nurses, and other patients (Murray, 1989) or rehabilitation nurses, written materials, a booklet, a dietitian, and pharmacist (Liddy & Crowley, 1987).

Decision and Reasons to Attend a CRP

Less than half of the participants indicated that they had personally made the decision to attend the program. About one quarter said the decision was not theirs, one eighth said they thought they had to go, and two said it was their physician's decision that they attend. A few perceived it as a need or a requirement for them to attend a program, such as, a physician's request so they could be assessed for return to former employment. Several participants felt it was desirable while four responses were ambiguous.

Over one third of participants thought the CRP would "help". Well over half of the participants made other positive anticipatory comments about the program, with three indicating that they were anxious to start the program. Participants focused on improvement in their condition, expressed a sense of necessity for going, and indicated that it would be a way to use their time. Though a need to adapt during the period of rehabilitation, a reason mentioned by all patients in Faller's study (1990), was not specifically given by participants in this study, participant comments reflect this perspective. Other comments also indicated uncertainty or optimism about the program; however, overall initial thoughts about the CRP were positive.

Expectations

However limited participants may have felt their background knowledge was, with several indicating that they did not know what to expect from the program or felt they had to attend a program before answering this question, and two stating that they did not expect anything unusual or anything specific, all actually shared, during the interview, the expectations they had for the program. Participants also recorded expectations that were not written in the EAPICRPQ-Part One.

Expectations presented were based on the participants' perceptions of what would take place and what they hoped to learn, to achieve and/or to gain, and how they hoped to benefit from the program. They included expectations for information, for achievement and/or gain, and for benefit.

Expectations for Information to be Learned in a CRP

Several responses reflected that information gathering was a reason to attend the CRP. Though Murray (1989) determined that few studies specifically dealt with MI individuals' "own views of their need for information and the implications these might have for the content of coronary rehabilitation programmes" (p. 687), the responses of these participants were consistent with those indirectly reported in other studies. For instance, patients perceived CRPs provided them with both needed support and information (Frenn, Borgeson, Lee, & Simandl, 1989) and post-MI subjects expected to have information topics included in a rehabilitation program (Faller, 1990).

Participants in this study also described decreased memory function, including problems remembering and in understanding or recalling information they had been given. This may account for post-MI individuals' interest in obtaining information. Subjects in other studies as well reported they could not remember information given to them or remember their hospitalization (Liddy & Crowley, 1987), and expressed a desire for reinforcement of previous instruction (Moynihan, 1984). Specific areas of information were indicated. These included topics related to myocardial function, action to be taken, changes, limitations, and additional areas not included in the EAPICRPQ.

Information about myocardial function. Participants had expectations of learning information about myocardial function. This included subjects, such as, anatomy and physiology of the heart, heart disease, and pulse taking. Over ten percent of participants hoped for increased knowledge and understanding about how their heart worked while almost twenty percent wanted facts on the heart and on heart attacks. Participants expressed a strong level of expectation for "understand how my heart works". This might be indicative of an attempt to reduce anxiety by learning about the heart (Johnson & Morse, 1990). The level of importance of this expectation to MI individuals is consistent with findings in other studies. Anatomy and physiology was reported as ranking number three in importance for information to learn (Wingate, 1990); and was reported to have received one of the highest mean ratings, in perceived importance for learning needs, by patients (Chan, 1990).

Three participants reported their most important expectation to be "understand how my heart works". This expectation was significantly related to "amount I know about my heart attack", indicating that those who knew the most about their MI were more likely to have a higher level of expectation for understanding how their heart worked. Perhaps those who knew the most about their MI were motivated to learn more about the functioning of their heart in order to understand thoroughly about the damage to their myocardium and to clarify for themselves what had happened to their heart. Only one participant wanted to know the severity of the heart attack.

Searching for potential causes of the MI was another aspect of learning about heart disease. Almost half of this study's participants wanted to determine the cause of, or know why, they had their MI. This finding was consistent with results of other studies. It has been suggested that patients seemed to need to find a cause for their MI to make it intelligible and "engaged in retrospective constructions of their own biographies in such a way that their heart attack was perceived as the obvious outcome of their previous lifestyle" (Cowie, 1976, p. 93). It has also been reported that patients sought to make sense of what had occurred by looking for causal explanations, and that those who had difficulty finding a causal explanation also had difficulty committing themselves to a life-style change (Johnson & Morse,1990). In contrast however, it was determined that expectancies for the future were better for those who had not engaged in causal search (Lowery, Jacobsen, & McCauley, 1987).

Factors considered as potential causes for the MI by this study's participants were consistent with those reported by other post-MI individuals (Faller, 1990) and included biological ones in addition to those reported elsewhere by patients as the most important cause of MIs, such as stress, worry, and overwork (Murray, 1989). Though not a phrase actually mentioned during the interview, participants reported that to "learn about heart disease" was one of their most important expectations. These findings were consistent with information reported in other studies. For instance, topics that were seen as important and as learning priorities were knowing the cause of a heart attack, what happened when someone had a heart attack, and the cause of chest pain (Chan, 1990). Furthermore, post-MI individuals wanted more information on understanding the disease and recovery process of MIs (Liddy & Crowley, 1987).

Significant relationships found indicated that those with the highest cholesterol level and cholesterol risk, those with a history of smoking, and those who felt they had the greatest amount of stress in their lives, were more likely to have a higher level of expectation for learning about heart disease. Perhaps those who were at the greatest risk because of their cholesterol and smoking habits and who were experiencing the greatest amount of stress wished to learn how these factors in their lives were related to their heart disease and sought to find some meaning to their MI experience. Though the majority of participants assessed their amount of stress and level of anxiety to be moderate or low, these relationships seem logically related to participants seeking to learn about heart disease and, specifically, to find a cause for their MI.

The level of expectation for "be able to count my pulse (heart beats)", was high for learning this task. In other studies, pulse taking was placed seventh in order of importance by MI individuals rating self perceived educational needs (Moynihan, 1984) and, how to take a pulse, was attributed to have lesser importance than other learning needs (Chan, 1990). This expectation had significant relationships with several variables indicating that those without present physical problems, who were younger, and who had the higher education levels were more likely to have a higher level of expectation for being able to count their pulse. Perhaps those who were free from physical problems had fewer concerns to distract them and felt they could concentrate on learning this new skill that could help them assess their status and progress, those who were younger perceived they could benefit from acquiring this skill, and those who had a higher education level understood more about the meaning and value of being able to count their pulse.

Information related to action to be taken. Participants had expectations for learning about what action they should take in specific situations. This included obtaining information so that they would know what and when discomforts or problems should be reported, know about nitroglycerine and how to use it, and know about their medications and how to take them.

The level of expectation by participants for "know what and when discomforts or problems should be reported" was found to be very high. Three participants recorded that this was among their most important expectations. These findings were consistent with results from one study about phone calls made by cardiac patients to hospitals following hospital discharge in which it was evident patients had problems and discomforts about which they sought advice and answers. The calls made most frequently by post-MI patients were reported to be about cardiopulmonary concerns, followed by medication problems, and thirdly, by gastrointestinal symptoms (Nicklin, 1986).

Though the level of expectation was high for "know about nitroglycerine and how to use it", expectations related to nitroglycerine were not reflected in comments made during the interview. Six participants did say, however, that nitroglycerine was readily available if they had to use it and one participant said this was one of his most important expectations. It was found that those who were closest to the time of their MI were more likely to have a higher level of expectation for knowing about nitroglycerine and how to take it. Perhaps this was an indication that those who were the closest to the time of their MI were experiencing more uncertainty in general and were not confident about their knowledge and ability to use their nitroglycerine appropriately, and felt a greater need to obtain this information or to have it reinforced.

Participants did talk, however, about receiving instructions while in hospital on their medications, about medication changes and taking medications, and had questions about medications for which they expected to receive answers during the CRP. The level of expectation for the statement, "know about my medications and how to take them", was very high. Three participants indicated that this was one of their most important expectations. This is consistent with findings from other studies. For instance, medication information was ranked number two in importance for learning priority (Chan, 1990; Duryée, 1992; Karlik, Yarcheski, Braun, & Wu, 1990; Wingate, 1990); and medication queries was the second most frequent concern expressed in a survey of post hospitalization phone calls made by cardiac patients (Nicklin, 1986). A basis for this expectation is perhaps related to an observation that when doctors talk about medications to patients, they must explain more to patients and in layman's language (Preston, 1988) indicating that patients perhaps have not been able to grasp the information given.

The level of expectation indicated in this study regarding medications, was higher than might be anticipated from the findings in another study where medications were listed as tenth in order of importance in a list of eleven self-perceived educational needs (Moynihan, 1984). However, though the expectation level was high, there was no evidence that learning about medications was considered a most important learning need for participants. This would be somewhat similar to the results of a study in which, medication information was rated by CCU nurses as statistically significantly higher in importance than by CCU patients (Karlik & Yarcheski, 1987).

A significant relationship was found between recency of the MI and wanting to know about their medications and how to take them. Perhaps this was an indication that those who were the closest to the time of experiencing their MI were more uncertain of themselves in general and lacked confidence in their level of knowledge and experience in taking their medications, and felt a greater need to obtain this information or to have it reinforced.

Information about changes. Another topic of information expected by participants was related to potential changes. This included possible changes in some habits in their life and in their work.

Participants had questions and expected answers during the CRP about what kind of changes were best for them. This was consistent with findings that patients expected to have topics related to changing their way of living included in a rehabilitation program (Faller, 1990). Though the actual impetus for personal change may have been without choice and influenced by symptoms or physician instructions (Frenn, Borgeson, Lee, & Simandl, 1989), it was evident participants in this study expected, and were planning for, changes in their lives. They did not, however, indicate, as did others, that one of the reasons they planned to pursue life-style changes was based on their enjoyment of life (Frenn, Borgeson, Lee, & Simandl, 1989). Almost ten percent expected that their habit of placing others, or duty, first had to change, and about ten percent said they also expected the CRP to help them progress in the right direction. Also of interest was the fact that one participant in this study had already taken action by purchasing a bike, an anticipated specific behaviour change planned by subjects in another study (Frenn, Borgeson, Lee, & Simandl, 1989).

Though few participants indicated precisely just what habits they expected to change, the level of expectation for "change some habits in my life" was moderately high. Significant relationships were found between this expectation and the variables total cholesterol, cholesterol risk, age, annual income per household, and frequency of smoking prior to the MI. Perhaps those who had the higher cholesterol risk perceived that they would have to change their eating habits and those who had smoked frequently prior to their MI, that they would have to stop smoking; and that both could see this as something concrete that they could attempt to change. Perhaps those who were younger were more optimistic about the possibility of changing their habits, could see more value in doing so, and believed that it would be more beneficial to them to change certain habits in their lives in order to achieve long term gains for health. Perhaps those who had higher total annual incomes per household felt they had more financial resources to dedicate toward activities and purchases, such as, exercise equipment that could enhance habit changes.

About one quarter of the participants also indicated specifically that they had been thinking about whether there would be some changes related to their work. Over one quarter of those who anticipated returning to work expected to find out if they would have to make work changes, including a change in their job. This latter concern was also reflected in a study where it was reported that the expectations pertaining to future work capacity were strongly associated with actual work status (Maeland & Havik, 1987). The level of expectation for "make changes in my work", was moderate which, again, is consistent with the characteristics of the sample studied in which only half were employed full time. Only one participant saw this as being a most important expectation while for three, it was among their least important expectations. A significant relationship was found between "make changes in my work" and the "amount of stress in my life". Perhaps this was because work tended to be a source of stress in participants' lives and they believed that changes in their work were required to change that factor. There appears to be a logical connection between these two entities in that, if someone expects that changes will have to be made in work, whether in practices or in actual type of employment, it follows that certain stressors will affect the individual including increased concern for what the person can physically do, what effect that will have on job retention, and what the opportunities may be for a new type of employment.

Information about limitations. Another topic about which participants expected to learn was limitations. Information was sought about knowing how to recognize the limits of what they could do, and also about what things they would have to restrict themselves in doing.

Participants indicated that they were uncertain about what activities they should engage in and to what extent, following hospital discharge. These activity concerns related to the time following the CRP, not only the present and immediate future. Questions posed by participants to which they expected to receive answers during the CRP included, finding out what and when they could do things, if they could do certain things, if they were supposed to do specific things, if they should do other things, and why they can or can't do things. Participants demonstrated major interest in their activities by the numerous concerns, questions and goals they mentioned related to activity including those connected to sports, recreation, leisure activities, physical improvement, work, tasks, and hobbies. Exercise was noted to be a most important expectation and an additional important expectation was expressed for knowing the proper way to increase activity. These findings were consistent with findings from other studies (Bramwell, 1986; Liddy & Crowley, 1987; Meagher, 1987) but dissimilar to the finding by Moynihan (1984) that hobbies was number one in order of importance for educational needs from hospital discharge to return to previous productive life-style. Expectations for activity information may be related to reportedly unrealistic ones, held by post-MI individuals, of the length of time it would take to get back to normal activity levels (Murray, 1989).

The level of expectation for "know my activity limits" was very high. Four participants indicated that this was one of their most important expectations, though one said it was the least important. The former finding is consistent with previous reports that physical activity was ranked number four in order of importance as a learning priority (Wingate, 1990), and that home activity was identified as being the third most important item in a list primary concerns (Duryée, 1992). Those participants who were younger and exercising more frequently since their MI were found to be more likely to have a higher level of expectation for getting to know their activity limits. Perhaps those who were younger and those who were exercising more frequently since their MI were more motivated and optimistic about attaining their activity limits and therefore wanted to determine what these were.

The level of expectation for "have restrictions on certain activities", was moderate. For one participant this was the least important expectation. An additional expectation, and designated as most important, was non-specified limitations. That participants did want information on restrictions, was clear. They expected to have questions answered as to what they can safely do, can't do, or shouldn't do. They mentioned concerns about whether they would be able to drive or fly again; whether they could return to other activities, such as, running, swimming, and hobbies; and whether there would be limitations on sexual activities. Also, it was evident that participants thought that they might have restrictions on certain activities as, for instance, they included finding out whether they could "get back" to certain activities, such as driving, as a reason for attending the CRP. These findings are similar to the results of a study on self perceived educational needs for post-MI patients in which, "limitations on activity", was number three in order of importance for things to learn (Moynihan, 1984). These findings are also consistent with conclusions drawn in a study that indicated post-MI individuals wanted information that was specific, such as, permissible types and levels of physical activity; and not meaningless comments indicating that they could do anything they wanted, that they were to take it easy, or that they had to be careful (Bramwell, 1986). It was also perhaps, because of questions asked, an indication that these individuals were in the process of accepting their limitations and changing "their expectations to incorporate limitations into their lives" (Johnson & Morse, 1990, p. 133). A significant relationship found between "have restrictions on certain activities" and "before my heart attack I exercised" indicated that those who had exercised more frequently prior to their MI, were more likely to expect limitations on their activities. Perhaps those who had exercised more prior to their MI were concerned that their exercising had been too strenuous, had concerns about the amount of physical stress which their damaged heart could endure, and that they would now have to restrict their exercising.

Additional general information. Additionally, participants wanted to determine physical reasons for their present problems, such as, tiredness; to learn what are the best or right things to do; and to be taught rather than read information. This finding was consistent with other studies which reported that post-MI individuals sought information that was specific and relevant to them (Chan, 1990; Liddy & Crowley, 1987; Murray, 1989). Also, and with a similar perspective, patients were found to have concerns about receiving advice that was not specific or relevant to their own needs (Murray, 1989).

Other specific information that was expected, and not precisely defined in the questionnaire, included general diet information, information on food, controlling food consumption, eating habits, controlling blood sugar, and amount and type of coffee to use. Two participants expected to have explanations specific to salt and it's relationship to their condition. Information was also sought by participants about how and whether they, or professionals, could recognize a MI; on statistics about women having MIs and the relationship between estrogen and women having MIs; and on what was the significance and meaning of blood pressure. The latter information was considered a most important expectation for one participant. Expectations regarding health, such as receiving information on what to do to make themselves healthy and becoming more knowledgeable about health in general, were expressed. Further, participants expected they would learn about their present physical state and, specifically, that of their heart; and expected they would be told what the best things were, that they could do.

Participants indicated that they expected the CRP to be a learning experience and to receive information, that questions they had would be answered, and that guidance would be provided. Additionally, one participant expected that information presented to participants in a CRP would be given in layman's terms and that she would also be able to communicate with CRP staff.

Participants also had expectations for information they sought about the future including, to what extent they would recover and what they could anticipate for the future, what they would have to continue doing, what type of things they should watch out for and follow, if they would be assessed at a later time, and if the CRP resources would be available for their use in the future if needed for such things as dietary concerns. That participants had these expectations was consistent with findings that, post-MI individuals' concerns about maintaining changes when the program was completed, were found disabling (Frenn, Borgeson, Lee, & Simandl, 1989).

Expectations for Achievement or Gain in a CRP

Almost seventy percent of goal-related expectations mentioned by participants were prefixed by the phrase, "get back to", and over thirty percent of these referred to activities participants had been doing before their MI. Several goals focused on desires for normalcy and living longer, though a few participants mentioned items which they said they did not expect to happen including running a mile, jogging, getting over being shaky, or being young again. Specific sectors in which participants did expect to achieve or gain something were in relation to the heart, food consumption, and activities. They also hoped for psychological gains.

Heart related achievements. Participants expected to achieve specific goals that were related to the heart. These included being able to manage angina if it occurred, promoting the healing of their heart, and receiving treatment to cure their heart disease.

During interviews no specific statements were made about being able to manage angina; however, participant response indicated a high level of expectation for "be able to manage angina if it occurs". This finding was consistent with reports that patients were concerned about not getting information on what to do if they experienced further chest pain at home, and that they wanted more information on this topic (Murray, 1989). Those who knew the most about their MI and rated the stress in their life as high, were found to be more likely to have a higher level of expectation for managing angina. Perhaps those who knew the most about their MI were more optimistic about being able to manage their angina because they understood what was happening when they experienced anginal pain; and perhaps those who were experiencing the most stress felt they would benefit from learning how to manage their angina and thus reduce at least one source of stress in their lives. Four participants noted that the expectation, "be able to manage angina if it occurs", was among their most important expectations. This finding was similar to studies in which, "what to do for chest pain", was ranked highest in importance for learning need items (Karlik & Yarcheski, 1987), and in which symptom management was placed fourth in information topics patients identified as the most important primary patient concerns (Duryée, 1992).

Another participant expectation related to achievement and what could happen with the heart, was associated with promoting heart healing. A high level of expectation was recorded for "promote the healing of my heart". Two participants recorded this as a most important expectation for them. Interview responses reflected a similar expectation, such as, restoration or improvement of the myocardium, hope for a healthy heart, and assurances that the heart's condition was acceptable. Other evidence that participants wanted to effect the healing of their heart were the desire to attain the health, strength, and flexibility they experienced prior to their MI; to leave the program healthier, stronger and fitter than they were upon entering it; and to make gradual progress in recovery.

Further, repair of the damaged heart muscle was one of the reasons given by participants for attending a CRP. Also, an expectation that was comparable to promoting the healing the heart and which was rated to be a most important expectation, was to get well again. These findings are consistent with reports that post-MI individuals were concerned about, not only the area of damage, but wondered if healing was occurring (Liddy & Crowley, 1987); that subjects were most concerned about knowing, and rated as important, how the heart heals (Chan, 1990); and that patients reported that they expected to have the topic of recovery included in a rehabilitation program (Faller, 1990). The expectation for promoting healing of the heart was found to be significantly related to "age", indicating that younger participants were more likely to have a higher expectation that they could do something to promote the healing of their heart. Perhaps they felt more optimistic than older participants about the damage to their heart being repaired.

Over one third of participants wanted to know the area and extent of injury to their myocardium and about one third indicated some knowledge regarding this damage. Over sixty percent assessed their overall knowledge about their MI as "some", and over half knew the severity. In Meagher's study (1987), no relationship was found between either the MI patients' expected rehabilitation outcomes or the medical severity of the MI and functional health status eight weeks following a MI. Similarly, in this study, no relationship was found between the expectation of promoting the healing of the heart and present physical problems, and further, no relationship was detected between present physical problems and assessment of severity of heart disease.

About thirty percent of participants had a positive outlook for the future. However many expressed negative ideas about their MI and wanted to put it behind them, while three participants stated that they did not plan to be an invalid, crippled, or incapacitated. The latter perspective, focusing on possible debilitating effects of a MI, is consistent with the observation that patients view a MI as a physical disability (Newton, Mutrie, & McArthur, 1991) or the perspective that this experience could end in complete invalidism (Scherck, 1992). Findings were also comparable to reports that some patients had a positive attitude about their recovery while others were pessimistic and fearful of being permanently disabled (Johnson & Morse, 1990).

Concern with death, a factor mentioned by almost half of the participants, may have influenced their desire for promoting the healing of their heart. This finding was consistent with other studies reporting that post-MI individuals considered their lives to be at risk (Scherck, 1992) and that they had to come to terms with their heart attack by contemplating the possibility of their own death (Johnson & Morse, 1990).

Participants also expected to receive treatment to cure their heart disease and this was considered to be a most important expectation by two participants. Though this specific phrase was not used during the interview, the themes of returning to their previous health situation, building themselves up again, or doing what they used to do gave the impression that it is a restorative or curative element that is expected from the CRP. Further expectations participants recorded were for restoration and to get well. Though there were a few participants who did not expect such a restorative result from the program, generally comments were reminiscent of the observation that, from the patient's view, a CRP was designed to fulfil the "magical wish to undo the heart attack, in fantasy as well as in reality" (Faller, 1990, p. 16).

Food consumption achievements. Participants expressed expectations related to the results of food consumption. These included lowering blood cholesterol levels and reducing weight.

About one fifth of participants talked about their blood cholesterol level. However, over half of the participants were found to be at risk for their high total cholesterol levels and had above normal results for low density lipoproteins, while nearly half had high density lipoproteins less than the normal level. Over sixty percent did not know their cholesterol levels and over ten percent wanted to know more about their cholesterol. The expectation, "lower my blood cholesterol level", was recorded as most important by only one participant, though the level of expectation was high. This finding is somewhat of a contrast to the finding by Chan (1990) that the meaning of terms such as cholesterol was among the least important items for cardiac patients.

A significant relationship found between "lower my blood cholesterol level" and the variable "cholesterol risk" indicated that those with higher cholesterol risks were more likely to have a higher level of expectation for lowering their blood cholesterol level. Participants who realize they are at risk because of their blood cholesterol level may be more motivated toward taking action. They may perceive the CRP being the best option for providing guidance and support in reducing their blood cholesterol level and therefore have a high level of expectation for achieving this goal during the CRP.

Participants talked about broad dietary changes with less than twenty percent mentioning weight loss as a potential change, and about ten percent indicating that it was an expectation. This expectation was recorded as a most important one for only one participant and a least important one for three. It was found that those who were at high risk because of their cholesterol and BMI, and who rated their weight as being too high, would be more likely to have a high level of expectation for reducing their weight. Perhaps participants who were at high risk because of their cholesterol and weight were more motivated to take action and perceived that reduction in weight was something concrete that they could do to effectively decrease their risks from high cholesterol and obesity and, thus, reduce their risk from further heart disease.

Activity achievements. For various activities, participants expressed goals that they expected to achieve. These included balancing rest and activity, improving activity tolerance, going back to work, safely resuming sexual relations, and stopping smoking.

Only about one eighth of the participants mentioned something about achieving balance in their lives such as between rest and exercise. However, the level of expectation reported for "balance my rest and activity", was quite high, though one participant reported that this was a least important expectation for him.

There was a high level of expectation for "improve my activity tolerance". Two participants recorded this as being a most important expectation for them and it was a topic mentioned by over ten percent of participants during the interviews. An expectation for "progressing" was also expressed by over five percent of participants. That participants hoped to increase their activity tolerance was reflected in their expectations for walking and for returning to other specific physical activities. It was found that participants with high cholesterol risk, who were younger, and who were exercising the most since their MI were likely to have higher levels of expectation for increasing their activity tolerance. Perhaps those with higher cholesterol risks were more determined to take action to reduce their risk by increasing their tolerance for activity because they were aware that exercise had a positive effect on reducing dangerous cholesterol levels; those who were younger were more optimistic of achieving this goal and saw the possibility of long term gains; and those who were already exercising more since their MI wished to advance even further in their activity level.

One quarter of the participants expressed expectations about going back to work or wanting to find out if they could go back to work. "Go back to work" was a most important expectation reported by two participants and a least important one recorded by two others. The level of expectation for "go back to work", was moderate, considering that equal numbers of participants were retired or working full time, one was unemployed, and two were working part time out of desire, not necessity. As well, a few retired participants saw this expectation relating to them returning to the tasks and duties they had been in the habit of doing since retiring. Over fifty percent of the participants thought that it was probable, or that they absolutely expected, to return to work. Of this number, fourteen had been employed full time prior to their MI and about seventy nine percent of these absolutely expected to return to work and another fourteen percent thought it very probable that they would. This number is understandably less than what was reported in a study in which subjects, all of whom had been employed prior to their MI, hoped to return to work and also wanted to know when (Liddy & Crowley, 1987). Only one participant in this study, who was unemployed, expressed a concern about the possibility of securing a job. This finding is in contrast to a study in which a large number of subjects perceived threats in the area of work and physical activity and wondered if they would be able to secure employment (Bennett, 1992).

Younger participants and those who had the highest level of family support were found to be more likely to have a higher level of expectation for going back to work. Perhaps those who were younger felt more of a necessity or more motivated to return to their former employment; and those who had the most family support felt more encouraged and, that with the help and assistance of their family, they had a greater likelihood of achieving this goal. There is a contrast between findings in this study, with regard to age, and one in which the authors determined that age did not influence patients' expectations about future function and work outcome (Maeland & Havik, 1989). However, a factor that could affect the relationship found between expecting to go back to work and the level of family support, was revealed in one report; that is, if conflicting advice is given to patients and their families, the ensuing loss of confidence is detrimental to successful return to work (Cay & Walker, 1988).

No significant relationships were found between income, education, or gender and future functioning, and the expectation of going back to work, as might have been anticipated. Patients who were male and who had higher formal education and income had been found to have less negative expectations for return to work (Havik & Maeland, 1987). However, the sample size in the present study may have been to small for a significant relationship to be detected. Further, though psychological problems "are linked to the patient's expectations of environmental problems especially those connected with return to work" (Cay & Walker, 1988, p. 75), in this study no significant relationships were found between the expectation of going back to work and psychological problems.

Though sexual counselling following a MI is considered an essential component of a cardiac rehabilitation program (Gondek, 1983; Stewart & Gregor, 1984), only one participant mentioned sexual relations during the interview and indicated that there were questions for which he was hoping to obtain answers. Further, though women reportedly found it difficult to initiate discussion of sexual activity due to shyness, fear or embarrassment, and felt it was the responsibility of health care providers to initiate such counselling (Baggs & Karch, 1987), perhaps all participants in this study felt the same way about discussing this topic. Further, post-MI individuals in other studies reported receiving vague information on permissible activities and, specifically, few were given guidance on resuming sexual relations (Liddy & Crowley, 1987); they did want more information on sexual intercourse (Murray, 1989); and the perceived importance of sexual activities varied from number two for self perceived educational needs (Moynihan, 1984), to low overall for resuming sexual activity (Chan, 1990).

The level of expectation in this study for "safely resume sexual relations", was moderate and was recorded as a most important expectation by only one participant. Those who were closer to the time of their MI, who were free of physical problems, and who were younger were more likely to have a higher level of expectation for safely resuming sexual relations. Perhaps those who had been out of hospital the least amount of time were more uncertain about the safety of resuming sexual relations, those who were free of concerns about physical problems had more energy and interest in resuming physical relationships, and those who were younger were more sexually active prior to their MI.

No significant relationship was found between resumption of sexual activities and the gender of participants. Both the small number of women in this study and the fact that neither gender made particular mention of this topic precludes drawing any conclusions about their expectations regarding sexual relations. Also, it was not possible to determine if women had specific questions about sexual activity as suggested by Baggs and Karch (1987).

Smoking was a topic mentioned by almost forty percent of the participants during the interview while over eighty percent of participants reported that they had been or still were smokers at the time of their MI. Ten smoked at the time of their MI and four were still smoking. The level of expectation for "stop smoking", was moderate. Post-MI individuals were elsewhere reported to have anticipatory plans for quitting smoking (Frenn, Borgeson, Lee, & Simandl, 1989). Though one participant in this study wanted things that would help him stop smoking and expressed the desire to quit, he did not say he expected to do so. Another study similarly indicated that post-MI individuals expressed interest in information on how to quit smoking (Liddy & Crowley, 1987). As well, three participants in this study reported this to be among the most important expectations for them while eleven participants indicated that this was one of their least important expectations. Participants were likely to have higher levels of expectation to stop smoking if they had smoked more frequently prior to and following the MI. Perhaps those who were the heaviest smokers realized that they needed the most support and guidance in order to quit smoking and perceived that the CRP would provide those elements.

Psychological achievements. Participants indicated several psychological achievements that they expected to attain through the CRP. These included understanding their feelings, dealing with their stress, and overcoming difficulties in changing their life-style.

Participants in this study did not express expectations for being able to understand the feelings that they were experiencing and no significant relationships were found between the expectation "understand my feelings" and other variables; however, the level of expectation for the statement, "understand my feelings", was quite high. This would seem to indicate that participants perceived this as an important goal for the program which is consistent with findings in Moynihan's study (1984) in which emotional response was rated number five in order of importance for self perceived educational needs. This view, however, differed from the suggestion by Faller (1990) that, psychological treatment is rejected because patients would have to confront their own contribution to the illness, and from findings in Chan's study (1990), where subjects rated talking to someone about their fears and feelings as being one of the least important items in teaching content for CRPs. Only one participant in this study indicated that "understand my feelings" was not an important expectation for him.

Perhaps one reason why, in this study, participants' level of expectation for understanding their feelings was so high is that, as suggested elsewhere, they were not given information that possible feelings, such as, depression and fear, are normal (Liddy & Crowley, 1987). The impression that this information is not generally known by patients was reported in a study in which, prior to hospital discharge, 80% of the 19 participants were unsure of what they could and could not expect regarding emotional adjustments after discharge (Meagher, 1987).

Further, throughout the interviews with participants there was clear evidence that various factors were causing stress, including uncertainty about the future, fear, anxiety, and worrying about dying as a result of heart disease. Stressors identified by post-MI individuals and reported in the literature were similar to those mentioned by participants in this study which included concerns about physical health, job responsibilities, return to work, children, future goal decisions, fear of impending medical procedures, recreation, and socialization (Miller, Garrett, Stoltenberg, McMahon, & Ringel, 1990). Also, a description that seemed to typify several participants of this study and may explain the stress they were experiencing was that type-A individuals "have an increased drive to succeed, demonstrate increased speed of activity and manifest hostility particularly when stresses are perceived as being outside their control and preventing them from reaching set goals at work. These individuals place a high value on work and may take on more than one job" (Cay & Walker, 1988, p. 76).

Participants stated goals which reflected a desire to decrease their stress. Over twenty percent indicated that they expected the program would help them with stress management and, when recording additional expectations for the CRP, responses included having less stress, stress reduction, and coping with stress related problems. "Less stress" and "learning how to reduce stress" were each recorded as being a most important expectation by one participant. "Less stress" was also considered a least important expectation for another participant. It was found that those who were the younger participants, and those indicating they were experiencing higher levels of anxiety and stress, would more likely have higher levels of expectation for being able to deal with their stress. Perhaps younger participants and those experiencing high levels of stress and anxiety perceived that they had more to gain from learning how to manage their stress.

One quarter of the participants in this study expressed goals for achieving normalcy which to them represented return to what they did and how they lived prior to their MI. This is consistent with the finding that patients expressed a need to have instruction on items which would facilitate their resumption of a normal lifestyle (Moynihan, 1984). Eight participants perceived that the CRP could help them achieve good mental health, five talked about finding out what they would have to do to maintain a good healthy life, two said they expected teaching would be employed to help achieve desired changes, and almost twenty percent of participants talked about planning and organizing their daily activities. Participants therefore had expectations for making changes in their life-style which would be influenced by the CRP. These expectations might be based upon a belief similar to that of all informants in one study, which was that, heart attacks were a disease of lifestyle (Johnson & Morse, 1990). There was evidence that hopes for the CRP may be founded on trust in factors such as luck, religious faith, a benign environment or help from powerful others (Maeland & Havik, 1989). For individuals planning to attend CRPs this may be trust in all the elements that make up a CRP. Further, MI individuals in other studies had expectations that changes in their way of living would be influenced by a CRP (Faller, 1990).

Additional evidence that CRPs have the potential to influence life-style changes for post-MI individuals was reported in a study of factors that enabled or disabled life-style changes and determined that proposed changes were not by personal choice, though they were seen as necessary (Frenn, Borgeson, Lee, & Simandl, 1989). It was also reported by Frenn, Borgeson, Lee, and Simandl (1989) that all their subjects saw the program as being very useful in enabling life-style change, that "perceptions of the difficulty of various life-style changes vary among subjects and require individual assessment" (p. 52), and that MI individuals need to change their beliefs to "get going on their own new way of living with the support provided in the program" (p. 50). These findings were consistent with the above moderate level of expectation demonstrated in this study for "overcome difficulties in changing my life-style".

Individuals who had no physical problems, who were younger, and who smoked frequently prior to their MI were more likely to have higher levels of expectation for overcoming difficulties in changing their life-style. Perhaps participants who were free from physical problems, and who were younger, had a more optimistic outlook and more energy to direct toward desired goals and to overcome difficulties that they might experience in making life-style changes. Perhaps those who had smoked frequently saw stopping smoking as their greatest life-style change and were determined that they would do so with assistance during the CRP.

Expectations for Benefitting From a CRP

Participants expected certain benefits that would result from attending a CRP; things that would be of help to them, useful to them, or that would promote their well-being. These benefits, though perhaps less tangible or measurable than the goals they expected to attain, were perceived to be of value and importance. Areas in which participants expected to benefit included involvement with others, cardiac improvements, physical improvements, activity benefits, and positive perspective.

Involvement with others. Participants indicated that involvement with others was an expectation for the CRP. This included talking to others who had a heart attack, having medical supervision, having someone to report problems to or answer questions, having supportive counselling, having spouse or family involved, and having a family member able to do cardiopulmonary resuscitation (CPR).

The level of participant expectation for interacting with other participants and CRP staff was high. About twenty percent of participants mentioned, "talk to others who have had a heart attack", as an expectation. This finding is compatible with results of other studies. There was evidence that patients compare themselves with other patients to typify and normalize their heart attack "in order to make sense of their own heart attack" (Cowie, 1976, p. 93), though this was not given as a reason for attending a CRP or described as an expectation. Also, patients often assume or perceive that their case is not the worst irrespective of their illness (Johnson & Morse, 1990). Other studies also support these findings in that participants perceived that CRPs brought them into contact with others who had similar experiences (Frenn, Borgeson, Lee, & Simandl, 1989); that participation in groups with other MI patients would be helpful to attain the educational goals of this period of convalescence (Moynihan, 1984); and that CRPs provided peer support (Cay & Walker, 1988).

Significant relationships found indicated that those who had higher expectations for wanting to talk to others who had a MI were more likely to have higher BMIs and total cholesterol and LDL levels, higher BMI and cholesterol risks, greater levels of anxiety, be younger, and were more likely to rate themselves as being overweight. Perhaps those who were more at risk because of their cholesterol and BMI status perceived that they had more to gain from discussing and sharing their concerns about these topics with other individuals who have experienced a similar event in their lives. Participants who were younger may have perceived that they had more to learn from such contact than older individuals who may be more inclined to accept their disease as part of the aging process. For those who rated themselves as having greater anxiety and being overweight, this was perhaps an indication of a need to express their anxieties and a desire to determine for themselves that others shared similar concerns.

About twenty percent of participants expected to be monitored by CRP staff. There was also a very high level of expectation for "have medical supervision". This expectation was reported as a most important expectation by one participant. To "have the benefit of monitoring activities and supervision" and to "take full advantage of the rehab centre during the recovery period", were recorded as additional and similar expectations. Also, several reasons given by study participants to attend a CRP were reflective of expectations for medical supervision provided by all members of the cardiac rehabilitation team. These included the advantages offered by the program, such as, rehabilitation staff and being safely monitored.

Additionally, anticipated desirable outcomes from the CRP, such as, experiencing the help and benefits of the program, repairing the damaged heart muscle, making progress, attaining recovery, and living longer were focused upon. These reasons were consistent with findings for expectations for rehabilitation, in that, participants emphasized improvement of their health status by means of medical treatment and information (Faller, 1990); and that patients perhaps expect rehabilitation staff to be a motivating force in their recovery, that individual and provider characteristics may interact to increase motivation in cardiovascular health behaviour, and that the perception of chance determining health outcomes may be reduced by support from rehabilitation staff (Fleury, 1991).

Further, other studies reported that MI individuals described needs for monitoring (Frenn, Borgeson, Lee, & Simandl, 1989), that patients sought reassurance from health care professionals by attending rehabilitation programs (Johnson & Morse, 1990), and that medical follow-up was fourth in order of importance on a list of self perceived educational needs (Moynihan, 1984). Significant relationships, however, were not found between this expectation and other variables studied.

In one study, post-MI patients who were interviewed and asked to indicate their learning needs while hospitalized, reported that they were often discharged home with unanswered questions, mostly related to management at home (Liddy & Crowley, 1987). Consistent with that finding, the level of expectation for "have someone to report my problems to or answer my questions", was quite high. One participant reported this as a most important expectation. This suggests that participants in this study may have had similar experiences and that they too were expecting to have unresolved problems and unanswered questions dealt with in the CRP (Liddy & Crowley, 1987).

Close to half of the participants indicated that they were expecting to have some kind of psychological support available; one specifically mentioned financial guidance. The level of expectation for "have supportive counselling (social worker, psychologist)", was moderate. One participant said this was a most important expectation for him while two participants reported this as a least important expectation. Overall, these findings were not consistent with the observations that, as a patient expectation for rehabilitation, "psychological support was only rarely mentioned" (Faller, 1990, pp. 13-14); that the psychological category was rated the least important (Karlik & Yarcheski, 1987); that psychologic factors ranked seventh in order of importance in learning priorities for post-MI individuals two to four weeks after hospital discharge (Wingate, 1990); and that the psychologic category was the least important informational category to learn (Karlik, Yarcheski, Braun, & Wu, 1990). Needs for counselling, however, were described (Frenn, Borgeson, Lee, & Simandl, 1989). Further, it was indicated that post-MI patients in group therapy considered learning positive qualities, getting insight from the past, experimenting with new behaviour, and receiving advice were most important expectations; while revealing secrets, experiencing negative feelings, and becoming anxious and depressed were items considered the least desirable (Stern, Plionis, & Kaslow, 1984). In the latter study, these expectation items were suggested by health care professional and not by the MI individuals; however, they were similar to reasons expressed by participants of this study for attending a CRP, such as, for psychological benefits and to increase feelings of confidence.

Significant relationships found indicated that those who were free of physical problems and those who knew the most about their MI would be more likely to have a higher level of expectation for supportive counselling from professionals such as a social worker or psychologist. Perhaps those who have fewer physical problems have more opportunity to focus on other concerns and therefore have a higher expectation of having help available to assist in dealing with those problems. Those who know the most about their heart attack may be able to focus on some problems in their lives for which a counsellor may be their best source of help and guidance.

References to family members indicated that participants perceived them to be supportive. This is consistent with findings regarding the hospitalization of the MI individual whereby "it was noted by all patients that the family was seen as a major support to them during the hospitalization" (Meagher, 1987, p. 130). Participants also observed that their family members were affected by the participant's MI, and described their varied reactions. Care and consideration were responses of family and friends also reported elsewhere (Faller, 1990). In this study, friends were attributed with offering support by saying that they couldn't understand why the participant had a MI. As well, they were reported to have concerns about their own vulnerability. These findings were consistent with the report that education for both family and friends was rated as number eight in order of importance for self perceived educational needs (Moynihan, 1984). One reason for the perceived importance of the support of family and friends may be that post-MI individuals, in making life-style changes, find this to be helpful (Frenn, Borgeson, Lee, & Simandl, 1989).

The level of expectation for "have my spouse or family involved", was moderately high. Over ten percent of participants stated that they expected to have their spouse attend the CRP with them and three participants indicated that this would be among their most important expectations. A significant relationship found between "have my spouse or family involved" and the variable, "number of weeks since infarction", indicated that those with the shorter period of time since their MI were more likely to have higher levels of expectation for having their spouse or family involved in the CRP. Perhaps this is because those who have more recently experienced their MI feel more dependent upon their spouse and family for support, than those who have more time between that experience and the CRP, and perhaps feel more independent.

There was a moderate level of expectation for the statement, "have a family member able to do cardiopulmonary resuscitation (CPR)"; however, it was not mentioned by any of the participants during the interview. It was reported as a most important expectation by two participants and as a least important expectation by one participant. These findings are similar to results from other studies. Patients did not rate as important, an item for knowing where their family could go to learn cardiopulmonary resuscitation (Karlik & Yarcheski, 1987); and they rated finding out where cardiopulmonary resuscitation can be learned, as less important to learn than other subjects (Chan, 1990). This may be an indication that cardiac patients perceive that it is more important to learn about what they can do to exert personal control than to learn about situations in which others would have to be in control (Karlik & Yarcheski, 1987). Individuals with no present physical problems, who were younger, and who were experiencing the least chest discomfort/pain, were found to be more likely to want a family member know how to do CPR. Perhaps those who were younger, and who were free from physical problems and chest discomfort/pain were more optimistic about life and would therefore desire an opportunity to prolong life as long as possible.

Cardiac improvements. Close to half of the participants had experienced pain prior to their heart attack. Since their hospital discharge, the majority of participants said they were feeling good, and a quarter of them indicated a better or improved health state, though about thirty percent talked about angina following their MI. Only just slightly over half of these individuals said they had actually experienced angina. In the questionnaire over half of the participants reported experiencing mild to moderate chest discomfort or pain, or angina, ninety percent having angina only occasionally. Five participants, during the interview, actually indicated that they expected to be able to prevent angina and the same number reported this as one of the most important expectations for them. Three participants expressed concern about the reoccurrence of angina. These results are in agreement with findings that recurrence of chest pain is one of the greatest areas of concern for post-MI individuals (Murray, 1989; Bennett, 1992). Consistent with this was the finding that the expectation level of participants for "be able to prevent angina (chest heaviness, tightness, or pain)" was high. Perhaps a reason for the concern is the difficulty individuals have in knowing if the pain they experience is anginal, and in being able to distinguish it from other pain and discomfort (Liddy & Crowley, 1987).

Almost half of the participants were concerned about the possibility of having another MI. Similar concerns about possible recurrence were reported in other studies including one on coping by post-MI individuals during the first three days after an acute MI (Scherck, 1992); in one where a common concern reported was having another heart attack (Bennett, 1992); and, in another, where an item concerning having another MI attained the highest mean score on a 37 item questionnaire (Chan, 1990).

Over thirty-five percent of participants talked about preventing another MI. Almost forty percent of the participants indicated that this was one of the most important expectations for them. This finding is consistent with reports from studies in which patients indicated that a very high learning priority was to know how the chance of having another MI could be reduced (Chan, 1990; Karlik & Yarcheski, 1987). Findings were also compatible with a study in which wives reported that "husbands interpreted their first myocardial infarction as a warning and the recovery period as a second chance for which they were grateful" (Bramwell, 1986, p. 851). In only one study were there indications that having another MI was not a major concern to post-MI individuals; those patients were reported as seeming to be unworried about the possibility of suffering another MI (Murray, 1989).

It was determined that "cardiac patients, whether or not they have experienced an MI, place high importance on learning about factors that contribute to a heart attack" (Karlik, Yarcheski, Braun, & Wu, 1990, p. 79). This was consistent with findings in this study in that, though the phrase, "reduce my risk factors for heart disease", was not used by participants, the level of expectation for this statement was very high. A suggested process that might enhance post-MI individuals' motivation to initiate and sustain risk factor modification efforts was to recognize the patient's potential to change his or her risk profile, and secure his active involvement and the support of family members and rehabilitation group members (Fleury, 1991). This conclusion may explain in part why the participant level of expectation for reducing risk factors for heart disease is high; but even more importantly it suggests a course of action that health care providers cannot afford to ignore that may well be the basis for effectively motivating participants in a CRP toward decisive risk reduction.

Further, findings related to risk factors were consistent with other studies in which post-discharge cardiac patients ranked the category of risk factors as the most important informational category to learn (Karlik & Yarcheski, 1987; Karlik, Yarcheski, Braun, & Wu, 1990); ranked learning priorities in order of importance with risk factors being number one (Wingate, 1990); rated their perceptions of what was important and included risk factors in the items that received the highest ratings (Chan, 1990); and identified risk factors as the information that was the most important and primary patient concern (Duryée, 1992). Conversely, it was also reported that post-MI patients placed risk factors ninth in a list of educational needs following hospital discharge (Moynihan, 1984), and, that among the least important items for them, was the meaning of terms such as risk factors (Chan, 1990). Contrasts were also found for this expectation between participants in this study as to the importance placed on risk factors; two participants indicated that this expectation was one of the most important to them and one recorded that it was among the least important. Those rating their level of anxiety as being high were found to be more likely to have greater expectations for reducing their risk factors for heart disease. Perhaps those who had the higher levels of anxiety were exploring more thoroughly any way they might reduce their anxiety and believed that, if they could reduce their heart disease risk factors, they would have fewer causes for anxiety.

Physical benefits. In the area of physical improvements, participants mentioned several expectations that would result in benefits for them. These included decreasing cholesterol in their diets, reducing fat in their diets, and maintaining ideal weights.

Patients' families had overall concerns and questions about diet (Bramwell, 1986; Hentinen, 1986). It was evident in this study that MI individuals also had concerns about their dietary situation, though diet instruction was reported as having been received while in hospital. Fourteen participants mentioned expecting to decrease salt intake and fourteen to decrease their fat consumption. Participants also indicated that they had questions about decreasing cholesterol, eggs, and red meats; and about whether or not to use decaffeinated coffee. Indications were that they did know the purpose of diets, not as was otherwise suggested in one study in which it was determined that subjects had a superficial understanding of diet and did not know why specific diets, such as, low cholesterol, had been prescribed, presuming the diet to be to lose weight and not knowing it to be related to lowering blood cholesterol level (Liddy & Crowley, 1987). Findings in this study, however, were more consistent with the suggestion that, though more specific information is requested, it appears that patients and spouses understand dietary management in general terms but have difficulty translating the information to their unique situations following discharge (Bramwell, 1986).

Participants did not specifically state intentions regarding cholesterol in their diets. However, the level of expectation for "decrease cholesterol in my diet", was high and was reported as a most important expectation by two participants. Findings indicate that expectations for overall diet information might have been of similar interest to the participants in another study in which diet information ranked as number six in importance as a learning priority (Wingate, 1990). In contrast, this expectation was seemingly of more interest to the participants of this study than to subjects of a study in which diet ranked as number eleven in order of importance for self perceived educational needs (Moynihan,1984). A significant relationship was found between a high cholesterol risk and a high level of expectation for decreasing cholesterol in the diet. Those with the higher cholesterol risk may have perceived that decreasing cholesterol in their diet was a concrete way of taking action to reduce their risk status.

Interest in finding out more about dietary fat was also expressed, and close to fifty percent of participants mentioned decreasing dietary fat. The level of expectation for "reduce fat in my diet", was high. Only one participant reported it as a most important expectation, while another indicated that it was a least important expectation. Also, the level of expectation for "maintain an ideal weight", was high, though no mention of this particular expectation was made during the interview. It was reported as a least important expectation by one participant.

Activity benefits. Participants demonstrated consistent interest in activities. Expectations therefore were expressed regarding activities that they expected to be beneficial to them. These included using exercise equipment, exercising within their limits, practicing relaxation techniques, changing how they used their leisure time, limiting the amount of alcohol they drank, expressing the feelings they were experiencing, and sleeping without difficulty.

About one eighth of the participants actually mentioned that they expected to use exercise equipment during a CRP. The level of expectation for "use exercise equipment", was high and was reported as a most important expectation by one participant. Significant relationships found between "use exercise equipment" and variables indicated that participants who were free from physical problems and chest discomfort/pain, and who were exercising the most since their MI, were more likely to have higher expectations for using exercise equipment in the program. Perhaps those who were experiencing better health and activity levels since their MI were more motivated and had more energy and enthusiasm to focus on using exercise equipment. Those exercising with greater frequency since their MI were perhaps also indicating a readiness to use equipment that they thought might help them continue their progress.

Exercise was mentioned by three quarters of the participants in some form and was an additional expectation recorded by one participant. Other studies reported that patients were disabled by concerns about exercising on their own (Frenn, Borgeson, Lee, & Simandl, 1989); and that they felt formal exercise programmes provide supervised exercise in a secure, friendly atmosphere with peer support, and restored confidence faster than a solitary walking programme (Cay & Walker, 1988), perspectives that were similar to those expressed by participants in this study. The level of expectation for "exercise within my limits", was very high. Three participants indicated that this was one of the most important expectations for them. Significant relationships found between "exercise within my limits" and the variables indicated that those with the higher blood levels of high density lipoproteins (HDL) and those who knew the most about their MI were more likely to have a higher level of expectation for exercising within their limits. Perhaps those who have high levels of HDL are already more active than other participants and those who know the most about their MI may wish to know what their exercise limits are so that they will not exceed these.

One participant mentioned that she had been told there would be relaxation exercises at the CRP; otherwise participants did not mention anything about relaxation exercises. The level of expectation for "practice relaxation techniques", however was high and was recorded as a most important expectation by one participant, though as a least important expectation by another. This activity was not commonly found mentioned in the literature pertaining to CRPs and only one study mentioned this as an expectation reporting that 16% of participants expected relaxation to be part of a rehabilitation program (Faller, 1990). A significant relationship found between "practice relaxation techniques" and the "present level of anxiety" indicated that those who were experiencing higher levels of anxiety were more likely to have a higher level of expectation for practising relaxation techniques. Perhaps those who were more anxious perceived a need for learning a technique that would help relieve or decrease the effects of anxiety.

Another relaxation topic was related to making changes in the use of leisure time, though changes participants foresaw taking place generally did not focus on leisure time activities. They were generally about how they anticipated altering their perspective, future plans, and goals; adjusting how they did things; and changing how they lived and responded to life. Of note is the fact that few participants even mentioned what they did in their leisure time other than one who had a hobby as a gunsmith, two who played cards with friends, and another who made wooden butterflies. A moderate level of expectation was indicated for "change how I use my leisure time", which is a noticeable contrast to findings in which specific hobbies were number one in order of importance for self perceived educational needs (Moynihan, 1984).

A further activity mentioned was alcohol consumption though only four participants made remarks about alcohol intake. The level of expectation for "limit the amount of alcohol I drink", was low. Additionally, for eight participants, this was one of their least important expectations for the CRP.

During the interview, participants also talked about the feelings they were experiencing including frustration, fear, depression, worry, fright, annoyance, anxiety, or just feeling different. Many of these feelings expressed by participants in this study were reported by spouses in another study as having been experienced by post-MI patients (Bramwell, 1986). The level of expectation for "express the feelings I'm experiencing", was quite high and was reported as a most important expectation by one participant. These findings are consistent with the conclusion drawn in one study where it was reported that those attending a CRP saw it as assisting them in coping with their fears (Frenn, Borgeson, Lee, & Simandl, 1989). However, this finding conflicts somewhat with the evidence provided in one study, and contrasts with that in another. Psychological support was only rarely mentioned as a patient expectation for rehabilitation (Faller, 1990); and it was reported that, though talking to someone about fears, feelings, and thoughts was rated as important, it was not rated as important as other psychological factors (Chan, 1990). Patients may not feel as easy about identifying the more sensitive issues which deal with emotions as they do with discussing more substantive information (Chan, 1990).

A beneficial activity about which participants did not generally express concerns during their interview was sleeping, nor were there specific comments about it in the literature. The level of expectation for "sleep without difficulty", was moderate and no significant relationships were found between this expectation and other variables. It was reported as a least important expectation by two participants, though an additional expectation that was recorded, was to maintain lots of rest.

Positive perspective. Participant expectations generally reflected a positive outlook. Two expectations reflecting this beneficial perspective were, to improve how they felt and to enjoy their lives.

The expectation, "improve how I feel", was not expressed during the interview. Expectations were mentioned that reflect this perspective however and included those of four participants who expected to be free from worrying about their hearts, of one participant who expected good health, and one who expected to be healthier than before his MI as a result of action taken during the CRP. The level of expectation reported in the questionnaire for "improve how I feel" was high; however it was reported as a least important expectation by one participant. An additional and similar expectation recorded by two participants was to be healthier.

Further, five participants indicated that one of their goals was to enjoy life; they did not say this was an expectation for the CRP. There was, however, a high level of expectation for "enjoy my life"; and six participants indicated that this was among their most important expectations. Two additional expectations recorded as most important that were similar to this were, to enjoy life and risk further heart disease, and to be healthy and be happy for the rest of his life.

Additional benefits. Participants shared other benefits that they expected from the CRP. One additional expectation was simply to live a normal life doing those things done previously both for leisure and work. Certain resources including literature, taped programs, lectures and discussions which provided recommendations, suggestions, and sensible ideas, were also expected to be available. Also, participants projected expectations that extended beyond the CRP, but which would be influenced by it, including three participants who desired that a support group be available following completion of the program; one who expected to be healthy and happy for the rest of his life; and one who expected that CRP resources would be available for use in the future if they should be needed for questions, such as, exercise problems and further dietary information.

Participant expectations, therefore, included a variety of information topics about which participants expected to learn, numerous goals and objectives that they hoped to achieve or attain, and a broad range of circumstances from which they expected to benefit. The majority were items already included in organized CRPs with the addition of ones which were somewhat more specific to individuals. Expectations were based on each participant's personal experience and were influenced by information that they already possessed about CRPs.

Nursing Implications

This study contributes to nursing science through identification of expectations for a cardiac rehabilitation program, expressed by post-MI individuals anticipating attending one. The findings support information hinted at but not expressly stated in the literature. Several nursing implications were evident from the results of this descriptive study for practice, education, and research. A better understanding of what participants perceive to be major topics for a CRP has been achieved with participant identification of topics for which they have the highest levels of expectation, and additional others which they anticipate being included in programs.

Practice Implications

Though it may be apparent that rehabilitation programs need to be tailored to the needs and abilities of the post-MI individual, their expectations for programs also must be taken into consideration. Assessment of the expectations which post-MI individuals have for CRPs, and their view of which is most important to them, may assist in setting priorities for program goals that the individual is willing to work toward. "Nursing interventions must be directed toward individual patient needs" as "motivation to initiate and sustain cardiovascular health behaviours may be enhanced through establishing goals valued by both the patient and health care provider as well as sharing responsibility for health outcomes" (Fleury, 1991, p. 7). For instance, nurses could assess the degree to which people feel compelled to make changes and whether the influencing factor supports or debilitates the process of coping and changing life-style. Also, nurses can significantly impact on successful goal attainment because of the role they have in CRPs, if for instance, information about activities in which patients can safely engage, and activity levels and restrictions as ordered by physicians, can be expanded upon and clarified by nurses.

It is important for nurses to ask individuals what their expectations are by some means, such as, a questionnaire similar to the one used in this study, with additional expectations included; and to recognize and support those expectations. For instance, the EAPICRPQ can be used in determining an individual's expectations; interventions can then be designed to help meet the expectations and the necessary information can be provided for the person to meet them, or the individual can be helped to realize that the expectations are not realistic and then can be encouraged to come to terms with that fact. Misconceptions can be dispelled, goals can be discussed to determine if they are realistic and appropriate, and decisions can be made and then supported. Patient beliefs, or in this case expectations, need to be taken into account so that correction of misconceptions can be part of the process of individually planned rehabilitation.

It is a primary responsibility of nurses to assess the individuals' needs and to plan jointly with them a program to meet those needs, and then to evaluate the effectiveness of the program. If nurses know what patient expectations are, they can more effectively develop individualized strategies to help patients achieve what they hope for and knowledgeably guide necessary behaviourial changes that will minimize the risk factors in their lives. In order to be useful, patient goals need to be based on the specific requirements of a given patient, and an intervention strategy has to be planned that meets the particular needs of the individual; therefore a program tailored to help a specific patient cope is much more likely to contribute to their recovery process than is a pre-packaged standardized program. Not only do nurses need to determine specific expectations to meet the individual needs of each patient, but they should also be willing to alter their plans of what they think is best for the person.

Additionally, the EAPICRPQ could also be used to assess how well participant expectations are being met, during and at the end of a program, both as a measure to assess how the individual is progressing and also as an evaluative tool for a CRP. All patients do not have or maintain the same perspective throughout the period of their recovery from a MI as "findings suggest that the perceptions of the patient with MI of his or her progress and abilities are subject to change over time" (Johnson & Morse, 1990, p. 135). Periodic assessment of expectations during a program would therefore be in order as it is highly probable that expectations too would change over time as they are based on a person's perception of a situation. Thus the questionnaire used in this study with the addition of topics, such as, information on salt, coffee, women and MIs, health improvement, and future availability of support and resources, may be used to evaluate the effectiveness of the CRP by having CRP participants complete it midpoint in the program and at it's conclusion, as well as at the beginning of the program to establish a baseline.

The expectations reported in this study provide a basis or foundation for including information and topics that are pertinent and specific to individuals, in addition to what can be provided to all participants of a program in general. Inclusion of these subject areas into CRPs can be facilitated, if they are not already a part of these programs. To reiterate, CRPs are established for the welfare of post-MI individuals; therefore, their expectations are vital in determining both program development and success. Thus, the findings of this study can prove useful to nurses in assessing the content of existing programs and in evaluating whether participants' expectations for programs are being met.

Education Implications

Nursing educators need to continue emphasizing to nursing students the importance of involving post-MI patients in planning their own care and to stress the value of determining what these individuals are hoping for or expecting in their recovery and from CRPs. Guidance must be provided to students as to what methods and means can be utilized to successfully determine this information. As stated by Meagher (1987), expectations should be assessed "in relationship to other situational and biological determinants" and reinforcements should be identified "that are particular to the patients and their optimum level of functioning" (p. 131).

Research Implications

An area of study that needs to be addressed is to determine the factors that affect post-MI individuals' decisions to attend CRPs. This need was reported by Conn, Taylor, and Casey (1992) who stated that "future work needs to address factors that affect MI survivor's decisions about attending cardiac rehabilitation as well as outcomes of cardiac rehabilitation" (p. 61).

Nurses should also assess patient expectations in relation to their cause (Meagher, 1987), that is the background circumstances that influence what is hoped for and anticipated. Not only would the expectations then be known, but also the basis for them. If this information is known, then nurses may have a stronger foundation upon which to base a plan of care and a better understanding of the post-MI individual as a person.

Further, having determined what post-MI individuals expect from a CRP, when they enter one, it should be determined empirically whether or not their expectations of a CRP are being met by the program, part way through and again at the end, to help ensure success by adjusting program planning accordingly and realistically. The questionnaire could be used to determine this information with minor changes, such as, including a few additional expectations, rewording the directions, and changing the leading sentence to reflect the past tense.

Lastly, research should be conducted to determine if nurses and post-MI patients share or differ in how they would assess the importance and level of expectation for "expectation statements". This would indicate whether there is a significant difference in these perceptions that should be taken into consideration when planning CRPs in general, and an individual's care in particular.

In summary, the findings of this study contribute to the building of nursing knowledge which focuses on the individual and their situation and perspective, and not simply on the perspective of the health care giver. This knowledge can be translated into practice that will benefit the person most involved, the one who experienced the MI. The results provide guidance for nursing assessment and individualized intervention for the CRP. Further research topics have been proposed and practice and educational suggestions have been made.

Limitations of Study

The results of this study may have been influenced by the teaching and instruction participants received in hospital prior to their discharge, by physician input, and by information and advice received from other sources prior to their interview. Further, due to the small sample size, generalizations cannot be made from this descriptive study.

Additionally, participants were all volunteers and all were planning to attend the same CRP which may have somewhat influenced answers and the perspective presented by the participants. The small number of female participants in the study, one major racial group, and also the limited numbers in each age group do not allow for meaningful comparisons of these characteristics.

As all interviews were conducted by one individual, it is possible that unrecognized biases were a part of the interview process. Open-ended questions, and a request that inquiries about the CRP not be asked prior to the completion of the interview and questionnaire, may have been adequate measures to counteract this possibility.

Content of the EAPICRPQ was assessed by health care professional experts. Had post-MI individuals been given the opportunity for input, the resulting questionnaire content and format may have been somewhat different.

Conclusion

The results of this study indicate that post-MI individuals do have expectations upon entering a CRP. Further, it is important to explore and establish factors that influence the development of these expectations as they cannot be determined in isolation from the participants' personal situations. Within this context, both the participant and their expectations can be better understood.

Expectations expressed during the interviews, to a certain extent, parallel the content statements of the EAPICRPQ. However, over 50 % of the questionnaire statements were not mentioned by participants in the form presented in the EAPICRPQ. Of these, four statements were not referred to otherwise in the collected data. However, 13 statements were mentioned either as being most or least important expectations or were presented in a form that was similar to the original statement but in the individual's wording. Of note is the fact that the questionnaire was developed from the standpoint of health care professionals; the form the participants used was from a personalized or individualized perspective.

Expectations, therefore, were generally similar to those of health care professionals' content statements. As most items mentioned by participants are included in programs, the question of whether or not these individuals and health care professionals have similar goals for a CRP, is partially answered. The greatest difference may be the perceived importance or diversity in the levels of expectation that each may have for specific expectations and the very personal perspective presented by post-MI individuals. Additional items which, however, did not appear on the EAPICRPQ included participant expectations for information about their own MI, and on salt, coffee, and blood pressure; expectations about specific concerns, such as, individual exercise, proper ways to increase activity, what can or can't be done, resources, and having particular questions answered; and the less tangible expectations of improvement or restoration of health and strength, normal life, and future possibilities. In general, the expectations of how participants anticipated benefitting from a CRP outnumbered those which were information or achieve/gain expectations. This emphasizes the perspective that what is accomplished in a CRP may not always be tangible or measurable. Also of note were the indications that those who were younger, who were closest in time to the experience of their MI, and who had the highest cholesterol risk, were more likely to have higher expectations for the questionnaire content items.

It is evident that health care professionals must explore the hopes for restoration, for future plans, and for improvement in health of post-MI individuals in addition to assessing the expectations already included in the EAPICRPQ.

Items identified by participants that they consider most important, should be carefully considered for inclusion in CRPs. Items not included in programs at the present time could be added.

The information provided by participants in this study was often reported indirectly in other studies, for different periods during the recovery process and for different reasons. In this study, however, the ideas are brought together and presented as a whole and in relation to post-MI individuals, their perspective, and their expectations for a CRP. It emphasizes the fact that individuals differ and that CRPs need to be flexible and have content adjusted to meet individual needs.

Findings show that when post-MI individuals are asked, they can indeed express expectations upon entering CRPs both for themselves and what they anticipate will occur during the program, and that these expectations differ somewhat from those of health care professionals. If participants are to be returned realistically to their greatest physical, mental, social, vocational, and economic usefulness, and if employable, provided an opportunity for gainful employment in a competitive world (Hojnacki & Halfman-Franey, 1985); and if a successful "attempt to prevent the progression of underlying disease" (Fleury, 1991, p. 3) is to occur, it is necessary to be cognizant of what participants' expectations are when they enter a CRP.

As individuals do decide to attend CRPs, it is clear that they do have reasons for going. The findings in this study indicate that they perceive they do not have all the information they need, can't perform the way they wish, and feel the need for supervised activity and guidance from health care professionals; and that they believe CRPs will help them to understand more clearly what has really happened to them in this event that has threatened their very existence.

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Appendix A

Introductory Statement

Hello, my name is Eleanor Hayes. I am a Graduate Student in Nursing at the University of Alberta. I am interested in finding what reasons people give for attending cardiac rehabilitation programs. I am doing a study to find what people who have had a heart attack expect to learn, achieve, and/or gain when they enter cardiac rehabilitation programs. By knowing what people expect, nurses will be better able to decide what content to include in the cardiac rehabilitation programs.

I would like to talk with you, to ask you some questions, and to have you fill out a questionnaire. Our conversation should take about 45 to 60 minutes. Any information that you give me is confidential. Your name will not be connected in any way with the study. I would like to tape-record the interview and write it down later. Your answers to the questions will be carefully studied. The recording will be kept in a locked file and erased after the study is completed.

If you agree to participate in the study, I would like you to sign a consent form. You will be free to withdraw from the study at any time. If you should decide to withdraw, the tape-recording of your interview will be erased in your presence.

After consent is given, the following statements will be made: The purpose of this study is to find out the expectations individuals who have had a heart attack have of cardiac rehabilitation programs when they enter them. It is, therefore, important that you respond to the questions with what you truly hope to learn, achieve, and/or gain from the program. There are no right or wrong answers to the questions. You do not need to worry about what I might think of your answers. I am interested in knowing what are your real expectations.

Appendix B

INFORMED CONSENT

STUDY TITLE: Expectation Assessment of Post-
Myocardial Infarction Individuals
Entering a
Cardiac Rehabilitation Program

RESEARCHER:	ADVISOR:
Eleanor M. Hayes, RN, BN	Dr. L. Jensen
Master of Nursing Candidate	Associate Professor
Faculty of Nursing	Faculty of Nursing
University of Alberta	University of Alberta
Phone: 456-5285	Phone: 492-6795

The purpose of this study is to find out what people who have had a heart attack expect upon entering a Cardiac Rehabilitation Program.

An interview will take place in my home or at a mutually agreed upon place. It will last about 45 to 60 minutes. The interview will be tape recorded by the researcher and typed later. I will also complete a questionnaire which takes about 30 minutes. The researcher may get information, such as blood test results, from my file.

I understand that the questionnaire, tape, and typed interview will only have code numbers on them. My name will not be on the typed interview. My name, address, and the tape will be kept in a locked file and destroyed at the end of the study. I understand that any future projects that use the typed interviews will be reviewed by an ethics committee.

I realize that there may be no direct benefits to me. There will be no health risks to me for being in this study. The information I give may help improve the program.

I may refuse to answer any questions. I can withdraw from the study at any time by telling the researcher, without my care being affected. A summary of the study results will be given to me at my request.

I have had the chance to ask questions and these have been answered in a manner that I understand.

I, ______________________, agree to participate in the above named study.

______________________ Participant

______________________ Researcher

______________________ Date

I would like to receive a summary of the results of the study.

Yes ___ No ___

Appendix C

PRIMARY GUIDING QUESTIONS

I. What has having a heart attack meant to you?
How has it affected you? your life?
How do you feel?

II. What are your concerns right now? worries? problems?
What might these be?
What are the main questions that you have since your heart attack?
What are the things that you want to find out?

III. What are your goals?
What would you like to do? Have happen?
What is important to you?
What do you hope for?
How do you plan to achieve this?

IV. How did you find out about the Cardiac Rehabilitation Program (CRP)?
Did anyone influence your decision to go?

V. What were your initial thoughts about a CRP?
What do you know about it?
What do you think will go on during a CRP?

VI. What do you want from a CRP? What do you hope for?
What is your main reason for going?
Is there anything that you want to learn?
How can you do this?
How can a CRP help you do this?
What can it do most for you?

Appendix D

EXPECTATION ASSESSMENT OF POST-MYOCARDIAL INFARCTION INDIVIDUALS FOR A CARDIAC REHABILITATION PROGRAM QUESTIONNAIRE

PART ONE

Below are expectations that you might have for a cardiac rehabilitation program.

Please circle the number which represents the expectation that each statement has for you. On the five point scale, the number:

"**1**" represents "**Do not expect at all**",

"**2**" represents "**Unlikely**",

"**3**" represents "**Uncertain**",

"**4**" represents "**Probably**", and

"**5**" represents "**Absolutely expect**".

Please be sure to respond to every statement.

Please respond to the statements with what **you** expect, not with what you think others might expect, or whether or not you know the information. There are no right or wrong answers.

DURING THE CARDIAC REHABILITATION PROGRAM I EXPECT TO:

1. talk to others who have had a heart attack

DO NOT EXPECT AT ALL	1	2	3	4	5	ABSOLUTELY EXPECT

2. have medical supervision

1 2 3 4 5

3. understand how my heart works

1 2 3 4 5

4. promote the healing of my heart

1 2 3 4 5

5. learn about heart disease

1 2 3 4 5

6. be able to prevent angina (chest heaviness, tightness, or pain)

1 2 3 4 5

7. be able to manage angina if it occurs

1 2 3 4 5

8. be able to prevent another heart attack

1 2 3 4 5

9. know what and when discomforts or problems should be reported

1 2 3 4 5

10. have someone to report my problems to or answer my questions

1 2 3 4 5

11. receive treatment to cure my heart disease

1 2 3 4 5

12. improve how I feel

DO NOT EXPECT AT ALL	1	2	3	4	5	ABSOLUTELY EXPECT

13. know about nitroglycerine and how to use it

1 2 3 4 5

14. know about my medications and how to take them

1 2 3 4 5

15. reduce my risk factors for heart disease

1 2 3 4 5

16. lower my blood cholesterol level

1 2 3 4 5

17. decrease cholesterol in my diet

1 2 3 4 5

18. reduce fat in my diet

1 2 3 4 5

19. reduce my weight

1 2 3 4 5

20. maintain an ideal weight

1 2 3 4 5

21. exercise within my limits

1 2 3 4 5

22. be able to count my pulse (heart beats)

1 2 3 4 5

23. improve my activity tolerance

DO NOT EXPECT AT ALL 1 2 3 4 5 ABSOLUTELY EXPECT

24. know my activity limits

1 2 3 4 5

25. use exercise equipment

1 2 3 4 5

26. have supportive counselling (social worker, psychologist)

1 2 3 4 5

27. stop smoking

1 2 3 4 5

28. limit the amount of alcohol I drink

1 2 3 4 5

29. safely resume sexual relations

1 2 3 4 5

30. change some habits in my life

1 2 3 4 5

31. overcome difficulties in changing my life-style

1 2 3 4 5

32. have my spouse or family involved

1 2 3 4 5

33. deal with my stress

1 2 3 4 5

34. sleep without difficulty

DO NOT EXPECT AT ALL 1 2 3 4 5 ABSOLUTELY EXPECT

35. practice relaxation techniques

1 2 3 4 5

36. express the feelings I'm experiencing

1 2 3 4 5

37. understand my feelings

1 2 3 4 5

38. go back to work

1 2 3 4 5

39. make changes in my work

1 2 3 4 5

40. balance my rest and activity

1 2 3 4 5

41. change how I use my leisure time

1 2 3 4 5

42. have restrictions on certain activities

1 2 3 4 5

43. have a family member able to do cardiopulmonary resuscitation (CPR)

1 2 3 4 5

44. enjoy my life

1 2 3 4 5

45. Things that I expect or hope to happen for me that are not written in this questionnaire are:

46. Of all the above statements, which would you rank as:

a. MOST IMPORTANT to you

b. LEAST IMPORTANT to you

PART TWO

PLEASE COMPLETE THE FOLLOWING INFORMATION BY CIRCLING THE CORRECT NUMBER OR FILLING IN THE BLANK:

1. Age:
   1. Under 30 years   2. 31-40 years
   3. 41-50 years   4. 51-60 years
   5. 61-70 years   6. Over 70 years

2. Gender:
   1. Male   2. Female

3. Ethnic/racial identity:
   1. Caucasian   2. Black   3. Native
   4. Asian   5. Other ____________

4. Marital status:
   1. Never Married   2. Married   3. Separated
   4. Divorced   5. Widowed   6. Other

5. Employment status before heart attack:
   1. Retired   2. Employed full time
   3. Unemployed   4. Employed part time
   5. Other______________

6.Occupation:____

7. Total annual income per household:
   1. Less than $10,000   2. $10,000 - 19,999
   3. $20,000 - 29,999   4. $30,000 - 39,999
   5. $40,000 - 49,999   6. $50,000 - 59,999
   7. $60,000 - 99,999   8. Greater than $100,000

8. Significance of religious beliefs to me:
   1. High   2.Moderate
   3. Low   4.None

9. Education completed:
   1. Grade school   2. Junior high
   3. High school   4. Vocational school
   5. College   6. University

10. Number of children at home:
   1. None   2. One
   3. Two   4. Three
   5. Four   6. Five or more ______

11. Level of my family support:
1. High 2. Moderate
3. Low 4. None

12. Severity of my heart attack:
1. Very 2. Moderate 3. Slight
4. Mild 5. Do not know

13. Amount I know about my heart attack:
1. A lot 2. Some
3. Little 4. None

14. Present amount of chest discomfort/pain:
1. Large 2. Moderate
3. Small 4. None

15. Present frequency of chest discomfort/pain:
1. Frequent 2. Occasional 3. Never

16. Present level of anxiety:
1. High 2. Moderate
3. Low 4. None

17. Amount of stress in my life:
1. High 2. Moderate
3. Low 4. None

18. I would rate my weight as:
1. Highly over-weight 2. Moderately over-weight
3. Slightly over-weight 4. Normal weight
5. Slightly under-weight 6. Moderately under-weight

19. My cholesterol level is:
1. Very high 2. High 3. Normal
4. Low 5. Do not know

20. Before my heart attack, I smoked:
1. Frequently 2. Occasionally 3. Never

21. Since my heart attack, I smoke:
1. Frequently 2. Occasionally 3. Never

22. Before my heart attack, I exercised:
1. Frequently 2. Occasionally 3. Never

23. Since my heart attack, I exercise:
1. Frequently 2. Occasionally 3. Never

THANK YOU FOR YOUR COOPERATION IN COMPLETING THIS QUESTIONNAIRE.

Appendix E

Participant Information Sheet

Name: ____________________ __________________________

(Marital Status: ____________________)

Phone Number: ______ _________

Address: ____

____

____

Date of Interview: ___ _____ ___

Time of Interview: ________________

Consent Signed: ____________

Identification Number: ___ ___ ___

Orientation Date: ____ ____

Appendix F

Health Status Information

Identification Number ___ ___ ___

1. Diagnosis ______________________ MI Date _____________

2. Number of days in hospital ________

3. Number of weeks since infarction _____

4. Complications ________________
   1. Yes ________________
   2. No ________________

5. Other medical conditions ________________
   1. Yes ________________
   2. No ________________

6. Present physical problems _______________
   1. Yes _______________
   2. No _______________

7. Cholesterol: Total ____ LDL____ HDL____
   RISK: 1. High 2. Normal 3. Low

8. Weight _________lbs. Height ____ft.____ins.
   _________Kgs. _______cms. BMI _________
   RISK: 1. High 2. Moderate 3. Low

9. Blood pressure ____/____
   RISK: 1. Extreme 2. High
   3. Normal 4. Low

10. History of smoking _________________________
    1. Yes _________________________
    2. No _________________________

11. Date of Birth ___ (day) ____ (month) ____ (year)